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ABSTRACT

The document comprises three articles which analyze roles and tasks of teachers in innovative elementary schools in the United States, Netherlands, and England. Innovative schools are interpreted as schools which favor educational practices such as open classrooms, team teaching, parent involvement, nongraded classes, global orientation, self-pacing, individualized and small group instruction, and student-centered activities. The first article compares two elementary schools in the Boston area--the Hanscom Primary School (located on a military base) and the River Alternative Elementary School (in an urban setting). Although the educational settings of the schools are quite different, teachers at each school are pupil-oriented, informal, and open to new methods such as open classrooms, elimination of formal testing and standardized curriculum, and involving parents in class activities. The second article focuses on The Holy Heart School in S'Hertogenbosch, Netherlands, where the central theme for innovation is global orientation. Important concepts in the world orientation curriculum are realization that the school is the place of encounter between the child and the outside world, stress on the role of teacher as supervisor of this encounter, and placement of knowledge and skills within a world orientation context. The third article explains how teachers in four innovative elementary schools in Bristol, England, stress individual instruction, an integrated and thematic approach to curriculum, and freedom to experiment until appropriate themes are found for all children. (DB)

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TEACHER TASKS IN INNOVATIVE SCHOOLS

Vol. I

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PREFACE

1. Within the framework of the programme of work of the Education Committee, the OECD has over the last few years undertaken an analysis of various aspects of teacher policies in primary and secondary education.

2. Previous studies were mainly concerned with how teachers' role and functions evolve when innovations are introduced in primary and secondary schools and with the general implications for teacher training.

3. As the work developed, it appeared useful to complete these studies with an analysis of the actual tasks that the school staff - and more particularly the teachers - are called upon to perform when implementing innovations at the level of compulsory education, and a number of innovative schools have therefore been selected for such detailed analysis of actual practices.

4. The interest shown in these analyses has encouraged the Secretariat to publish them under the general title : "Teacher Tasks in Innovative Schools". This publication is one of a series of three volumes :

Vol. I is concerned with primary schools in United States, Netherlands and United Kingdom.

Vol. II deals with compulsory secondary education in Belgium, Norway and United Kingdom.

Vol. III is concerned with utilisation of teacher aids in some European countries and United States.

These studies are being issued in one language version only, the original one in which they were prepared.

UNITED STATES

ANALYSIS OF INNOVATIVE TEACHERS' ROLES AND TASKS IN TWO SCHOOL ENVIRONMENTS

by

Diane Levin
Assistant Professor at Lesley College
Cambridge, Massachusetts

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I. Introduction

This paper analyzes the roles and tasks of the teachers in two innovative schools in the Greater Boston Area in relation to the overall learning environments of the school.

The major innovation with which both schools are involved is commonly called "open education" in the United States. It is also known as the integrated day, informal education or progressive education. Other related innovations have become associated with open education. While they are not necessarily a part of it and the presence of one or more of them does not necessarily imply the presence of open education, several of them can be seen in either or both of the schools studied here. They include: individualized instruction, team teaching, use of teacher aides and many parent volunteers in the classrooms, informal methods of evaluation, the elimination of grades and multi-age class groupings.

Open education gained its initial impetus in the United States about a decade ago from reports of informal primary school practices in Great Britain. In the process of translating it into practice here and in adapting it to the American environment, it has undergone many changes even though many of the underlying tenets remain the same in both countries. In England and perhaps even moreso here, because of our more rapid attempt to shift to informal practices, there are many different conceptions as to what comprises good open education practice. Thus, one sees many different practices going under the label of open education ranging from being quite similar to traditional practices(where more individual choice time is allowed for children or individually paced materials are available), to being quite radical practices(where the teacher puts few demands on the children and children take almost total responsibility for their learning). The two schools described in this study fall between these two extremes. There are many similarities in both the operational definitions of open education and the methods of implementation they employ.

Because the term open education is used to connote widely different practices, the reader will gain a much clearer idea of its use in this report from the descriptions of the schools and analyses of the teachers' roles than could be obtained from a brief description. Others have described open education in depth (Weber, 1971; Sussmann, 1974). Here, I will outline only a few of the general assumptions guiding its use in the schools in this study.

Open educators stress that learning is an active process in which students and teachers share responsibility for students' learning. Teacher direction, guidance and structure are created to facilitate learning. A major shift in traditional thinking about what learning is and how children learn most effectively is required here. Skills are considered to be an essential part of learning in an open classroom, but a wider range of skills are valued than in traditional settings. The child's desire and ability to use the skills in a variety of situations in encouraged and this is generally facilitated when learning tasks capitalize on the child's interests. Knowledge of specific facts is not as important as learning to deal competently with the world. Skills and content areas are not necessarily divided into separate entities and are often interrelated with one another. While open education is based upon a wide body of theoretical and practical information about human development and learning(especially the work of Jean Piaget), there is no formula for creating an open classroom. This does not mean that classroom practices are random. The environment is highly structured and carefully planned but based on different criteria than traditional educators use.

The form an open classroom takes is dependent on the individuals and particular environment involved. One finds many differences in actual open classroom practice despite the assumptions about learning and the educational goals open educators share. It is not necessarily helpful or informative to focus on the functioning of one teacher because of the great variation from teacher-to-teacher and from room-to-room. This situation poses a dilemma for educators who are attempting to train open classroom teachers. Many descriptive reports have been written of specific, well-functioning open classrooms. They often leave the impression that a "good" open classroom "just happens" when an environment rich in materials is provided children and they are left to their own devices. But those who have tried to implement open education after having read these accounts quickly learn that the teacher's role in creating an open classroom involves a high degree of skill and expertise.[1] Few reports have specifically analyzed the kinds of skills the teacher needs, the roles he or she performs, the stresses and rewards involved, or the personal characteristics of successful open classroom teaching in order to make generalizations about the role of the teacher and the unique problems the innovation creates. A similar case could be made for our lack of understanding of the role of teachers involved in other forms of innovation. Lortie(1975) suggests we are even missing this information for traditional teachers' roles. He points out:

> "Schooling is long on prescription, short on description. This is no where more evident than in the case of the two million persons who teach in the (United States) public schools. It is widely conceded that the core transactions of formal education take place where teachers and students meet. Almost every school practitioner is or was a classroom teacher; teaching is the root status of educational practice...Changes are proposed and initiated without sure knowledge of the settings they are presumed to improve. Without a clear picture of school reality, efforts at rationalism can dissolve into faddism and panacean thinking." (pp. vii-viii)

The faddism and panacean thinking which results from insufficient knowledge of school reality is all to evident in many of the innovations which are currently being implemented in the United States, including open education.

This report focuses on the tasks and role of teachers involved with one major type of innovation. What the teachers actually do from day to day in their classrooms, factors within the classroom environment and school settings which influence the teachers' roles, and the aptitudes and skills required of the teachers in their innovative roles are analyzed.

A. Selection of the Schools

The two schools were selected for several reasons. First, the innovations practiced in both schools have gone beyond the planning and initial implementation stages and are deeply incorporated into the classroom practices and school environment. This is not intended to imply that there is

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[1] Roland Barth(1972) describes the results of one such attempt at implementing open education.

not diversity in degree, quality or specific interpretations of the innovations among the teachers, or that the innovations have become static and rigid. Rather, both the staff and outside observers in the schools recognize that the initial stresses associated with instituting major innovations in schools have been worked out and the schools now are refining the innovations rather than making major alterations. In this sense, the innovations can be characterized as being "successful" and accomplishing their intended goals.

Second, the innovations implemented in the two schools are similar and lend themselves to interesting comparisons and contrasts. For instance, there are striking differences in terms of educational settings. This makes it possible to consider how different environmental circumstances effect the form a given innovation takes and how the role of the teacher is affected in the different settings.

Third, the innovations in these two schools are representative of the kinds of innovations which progressive educators have advocated in the United States. They represent a major direction in which innovation has occured. The two schools are not typical of all schools which have attempted open education, however. For instance, most of the teaching and administrative staffs in both schools are committed to moving away from traditional education toward open education. This made it possible to implement a more extensive version of progressive education than many schools, which claim to use progressive techniques but have only a small percentage of the teachers involved with the innovation. Another distinguishing feature of the two schools is that they have been successful in reaching their goals to a greater extent than many schools attempting this type of innovation. This feature offers the advantage of allowing for the kind of study Lortie suggests we need. To date, the change process itself has been studied much more than the changes in teachers' roles once the innovations have been implemented.

These two schools were also selected because they are both public schools within larger school systems. In both cases, the larger system exerts some control over the schools. The innovations create interesting dilemmas for the teachers within the school and system setting which influence significantly the pressures and demands the teachers feel. These demands often require that the teachers learn additional skills not directly related to classroom teaching. Many schools which have innovated to the extent that these two schools have are private rather than public schools. It is often difficult to make generalizations about private schools which can be accurately applied to educational settings in the public sector.

A final reason for selecting these schools is the fact that I have visited and observed in the two schools for several years, in the case of one since the onset of the innovation. I have had regular contact with several classrooms in each school and have specifically focused on the functioning of the schools at the classroom level. Through these experiences and interviews with several teachers conducted specifically for this report, I have gained an understanding of the attitudes and concerns of the teachers and the inner workings of the schools.

B. The Two Schools

1. Hanscom Primary School

Hanscom Primary School(HPS) is a public school for children from kindergarten through third grade (ages five to eight years). It is located on a military base for the children of military personnel but operated by

the Lincoln Public School Department, a quite affluent school system. Funding for the school comes from both the school system and the Federal Government. Currently three-hundred thirty children are enrolled at the primary level.

The military base offers an unusual setting for a public school. In many ways, it combines elements of city(the facilities available), suburban(the neighborhoods and types of housing) and country(the security of an isolated and protected area) living. There is a sense of community among residents on the base and this is reflected in the school environment.

Attendance at HPS is not selective. All children living on the base, except a few who attend parochial schools off the base, attend HPS. Because the children are dependents of military personnel, their families are very mobile. The average stay on base is two years. While the children entering kindergarten in the Fall are attending their first school, a majority of the children who finish third grade at HPS have attended at least two other schools. Throughout the school year children are entering and leaving classes at the school. Their experiences at other schools vary a great deal, ranging from extremely traditional to innovative(but innovative in a variety of ways). Few of the other schools are as innovative as HPS is. However, the teachers have found that the children who have the greatest difficulty adjusting tend to be those who have previously attended very traditional schools, who also have parents that were very satisfied with traditional education. In other words, the teachers feel that the parents' attitudes often affect children's adjustment to Hanscom more that does their previous school experiences. This observation is one of the factors that has led the school develop an active parent orientation program and other activities which help parents to better understand the school's practices and philosophy.

The teachers at HPS are interested in the effect the school has had on children when they attend other schools. This concern has led to the construction of a follow-up questionnaire which asks about the kind of school the children have moved to and their adjustment to it. It is sent to children's parents and new teachers three to six months after the children have left HPS. In general, analysis of the data from two years indicates that the children tend to do average or above average compared to other children attending their new schools.

The families of the children attending HPS are voluntarily in the military service because the United States no longer has conscriptive armed forces. Their social background is becoming more homogeneous than it was when men were drafted from all social and economic groups. A growing proportion of the children attending HPS are from upwardly mobile, working-class homes. The military services are seen as one avenue to better education and the middle class. However, children of both officers(who tend to be better educated and more middle class) and non-officers attend school together. Parents are generally interested in their children's education and follow its progress carefully.

The staff at Hanscom is sensitive to the difficulties which can arise for children who lead transient lives. It is often difficult for children to enter an ongoing classroom. Children have to establish a sense of security with teachers and peers at their new school before effective learning can occur. These concerns initially contributed to the teachers' general questioning of the goals of education at HPS and an awareness that traditional education created many problems for these children. They have provided a major impetus for the innovations and the form the innovations took.

The teachers at HPS hoped the innovations would help minimize the adjustment and learning difficulties for the children. The innovations were intended to provide as much security and continuity for the children as possible, and to foster skills which would help children make adjustments to other new situations in the future.[2]

The innovations at HPS fall under the major category of open education, as described earlier. There is a certain amount of diversity in the degree to which individual teachers implement open education practices but all are working at the "open education end" of the educational continuum. Several teachers have achieved a high degree of confidence and competence in open classroom methods; others are still moving slowly from traditional to open education methods. The school administration is supportive of teachers' needs to innovate at a differing paces.

The teachers at HPS do not rely on, nor are they required to give, formal tests to the children. Metropolitan Achievement Tests are given to third graders in the Spring of their last year in the school. The staff decided to initiate this practice primarily to avoid the external pressures and concerns about student achievement on formal skills which often arise when schools attempt innovative practices. On these tests the children average 20-30% above the national norm. Occasionally, when concerns arise about individual children, other formal tests are administered. For teaching and evaluation purposes, the teachers use a variety of informal assessments but grades are not given.

There are no standardized curricula required in the classrooms. While the school system does offer guidelines for each major subject area at each grade level, they are general in nature and not required. Teachers develop their own materials and activities, and use commercial materials when considered appropriate. In determining the curriculum, the previous experiences of the children, their interests and educational needs are assessed. This kind of curriculum offers children a highly individualized program in which they play an active role. This is in part necessitated by the differing learning experiences the children have had when they enter the school and also by the teachers' sensitivity to different learning styles in children. While students are generally required to do certain tasks, the kinds of activities required vary depending on the abilities and needs of each child. The amount of freedom and responsibility the children are given in making choices about their school activities varies among individuals. Teachers rarely teach to the whole class.

Grades are not given for school work. Descriptive reports are sent to parents three times a year which indicate how children are progressing in a variety of areas. In addition, there are check-lists which have been developed by the teachers to indicate when specific activities or skills have been mastered. Parent conferences are held with teachers two times a year. Most teachers also have frequent individual conferences with children to discuss their progress and extend learning, but no formal tests are given for instruction or grading purposes.

About two-thirds of the fifteen classrooms at HPS have the children

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[2] It should be pointed out that all young children need the kind of security and continuity which the HPS teachers are trying to provide. It is a matter of degree which distinguishes HPS children from many children at other schools.

of two or three grade levels assigned to the same room. This innovation, called family, vertical or multi-age grouping, often accompanies innovations which eliminate grades and standardized curricula. It characterizes many British informal schools and offers many advantages over traditional methods of grouping children(Ridgeway and Lawton, 1969). A major reason for its initial implementation at HPS was to allow children who entered the school to have the same teacher the following year. It was a way of providing more stability in the lives of the children than the usual practice of assigning a new teacher each year based on grade level. The teachers have come to recognize other advantages of multi-age grouping.

Other innovations have been implemented at HPS as a result of needs which arose in the course of implementing open education. They include the introduction of classroom aides, team teaching among a few of the teachers, and the creation of a new staff position -- the curriculum resource specialist - to help teachers develop curriculum materials and activities.

At HPS, the changes and innovations have been gradual. At no point did drastic changes occur. They were begun by a small group of concerned staff. Gradually, the changes began to spread among other staff members. This process was aided by the staff's involvement in the selection of new personnel who were supportive of and often experienced with these kinds of innovations, and two supportive and innovative administrators who ran the school since the innovations began about six years ago. This method of innovation contrasts sharply with the methods employed by the River Alternative Elementary School.

2. The River Alternative Elementary School[3]

The River Alternative Elementary School(RAES) is an alternative public school within an urban public school system. Currently it has grades kindergarten through eight. It was started in the Fall of 1972 after two years of careful study, planning and political maneuvering by parents, educators (mostly outside the school system) and concerned citizens of the community. These people felt the public schools in the city reflected a very narrow range of current teaching practices. They wanted a school available to children which offered a progressive alternative to the traditional education currently being practiced.

The school began with grades kindergarten through five. An additional grade has been added each year to allow the oldest children to continue at the school until they enter high school. There are approximately twenty-five children at each grade level. RAES is located in a lower to working class neighborhood which has an integrated population. After having been housed at three different schools the first year and a half(because of the school administration's inability or unwillingness to find a suitable location), school facilities are currently located in an old, three-story school which was formerly a parochial school.

Attendance at the school is not selective in terms of examinations or other competitive means. Children are admitted based on a quota system which is reflects the racial, ethnic and economic make-up of the city. Parents decide to send their children to the school. There are waiting lists for entrance among certain groups. For others, especially lower class and minority groups, recruitment must be conducted to meet the quota. Children are bused to the school from all areas of the city. The classes contain a more heterogenerous group of children than at the other schools in the system. Interest-

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3 The name of this school has been changed.

ingly, the school has tended to attract a large number of children who were having serious problems in the traditional schools they attended previously. It seems that some parents sent their children to the school because they saw it as their last hope for their children's education, rather than because they were committed to an open education philosophy.

As at Hanscom Primary School, the innovations implemented at RAES fall under the major category of open education. But at RAES, unlike HPS, the stated purpose of the school from the onset has been to engage in open education. Most traditional practices were subject to intense scrutiny and many were rejected. Teachers, staff and children all began at the school at the same time. Everyone involved at the start had clear ideas about what they hoped the school would become. Very quickly disagreement arose as to how the goals of the school were best accomplished or even what constituted accomplishing them. At first, the innovations tended to fall on the extremely open-end of the educational continuum. Many children, especially those in the older grades, were unable to cope with the amount of freedom offered, partly because of their previous traditional school experiences. Chaos was often the result. Controversy arose as to the nature and role of academic learning at the school. Fortunately, through constant reassessment and clarification of educational practices and goals at the school over the past four years, it has evolved into a well-functioning progressive school. There continues to be active discussion about teaching practices, and mechanisms for dealing with disagreement have been created.

Formal tests have been a matter of controversy at the school. Many of the teachers and parents feel that standardized tests do not test the wide range of skills which are valued at the school.[4] However, the school system requires that standardized achievement tests be given to all children. A compromise has been reached. Parents who do not want their children tested send written requests to school that their children be excluded from the testing. Those children who do take the tests do as well or better on the average than children in the other elementary schools in the system. To provide the kind of feedback which the school staff considers most important, external evaluators have been hired to conduct ongoing informal evaluations of the individual teacher's performance, the school's overall functioning and the children's progress. Bi-annual comprehensive reports have been written which document the evaluator's observations.

As at HPS, there is no standardized curriculum at RAES. Teachers do use commercial materials but in an individualized manner. They rely heavily of materials developed by themselves and the children. No grades or formal tests are used for evaluation. Informal written reports are sent home to parents two times a year and conferences are held with parents twice annually. Teachers have frequent individual conferences with children to direct and assess their learning. Teaching is rarely done in whole groups. Children are given individual assignments and responsibilities throughout the day. All classes are vertically grouped, with at least two and sometimes three grade levels. Most children stay with one teacher for more than one year.

There are a few features which distinguish the innovations at RAES from those at HPS. Most important, parents are directly involved in the run-

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[4] The testing controversy at RAES is typical of the debates which have arisen at many innovative schools in this country. For a general discussion of the issues involved see Perrone(1975).

ning of the school at RAES. They serve on committees which hire staff, evaluate teachers and determine rules and regulations of the school. Many parents help regularly in the classroom. They help build furniture, make materials and care for the space as well as serve as volunteer aides. There is a staff position specifically created for coordinating and guiding parental and community involvement at the school. The desire and commitment to involve parents at all levels has led to many tensions and concerns, especially in the first two years of the school. Gradually, mechanisms and procedures have been established which have contributed to effective and vital parental involvement.

RAES has obtained outside funding to aid in its staffing, equipping and evaluating of the school. The River City School System, like most urban systems in this country, does not have the financial resources that suburban systems like Lincoln have. In its first year, RAES suffered from many shortages of equipment and personnel due to inadequate financial resources. Due to better planning and the outside grants, the school no longer experiences major shortages of resources.[5] At HPS, because the innovations were gradual and the school was better funded before and during the changes, there was never a great need for additional funding.

The innovations at RAES weresubject to more external scrutiny and pressure from the onset, than were those at HPS. RAES has been much more visible to the community and school administrators in the system. Its intent and purposes were more highly publicized. Its goals and practices were a much more radical departure from what was generally considered to be appropriate elementary education in the community than the more innovative Lincoln system. For many people,RAES was viewed as a threat. Thus, the innovations at RAES were much more political in nature than those at HPS.

With this general overview of the histories of the two schools and the nature of their innovations, it is now possible to look more closely at the tasks and roles of the teachers.

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5 Educational innovators have learned from experience that for most major innovations additional starting funds are essential.

II. Ways In Which Teachers Accomplish Their Classroom Tasks

Based on the descriptions of the two schools and the nature of their innovations, the teachers generally can be characterized as:

- -pupil-oriented in the organization of their classrooms as opposed to teacher-oriented. Teachers approach children as individuals, plan curricular activities based on careful assessment of individual needs, and make classroom decisions based on particularistic criteria.
- -informal in their methods of conveying knowledge to children as opposed to formal. Children are actively involved in obtaining knowledge; teachers help children make decisions about learning but in an interactive rather than a one-sided way, with both providing input.
- -open in the way they organize knowledge as opposed to closed. No predetermined body of knowledge is required of children at any one time; while basic skills are considered important, no one method of conveying them is assumed to be necessary or best for all children; different children are assumed to learn the same skills in a variety of ways; the project method is an important way of fostering learning; and, interdisciplinary study is common.

Within these three continua, there is variation among the teachers as to where they fall along the pupil-oriented, informal and open ends. In all cases, the teachers are not completely consistent in their adherence to any one position. One could not characterize the teachers as constantly balancing a variety of factors when making decisions about pedagogic approaches in any situation based on such things as group needs, individual needs, school requirements and the nature of the activity.[1] The descriptions of the teachers' roles and functions in their classrooms will clarify their pedagogic approaches and reveal the variations which occur in the course of the teachers' translating their personal philosophies into practice.

A. Hanscom Primary School

1. General atmosphere and pedagogic approach in the classroom

The classrooms at HPS are warm and friendly places. Children move about the rooms freely as does the teacher. Children talk to their classmates while they are working, often providing assistance to each other with their work. They have ready access to their teachers when guidance or instruction is required. Teachers may offer assistance when they feel it is necessary, but children are also encouraged to use their classmates as sources of learning.

The classrooms are self-contained but there are folding walls between rooms which can be opened when teachers want to do joint activities. The walls are generally kept closed. In a few cases, teachers have begun to work closely together and their interaction has been facilitated by this physical arrangement. There are no halls in the school connecting the classrooms. The sliding doors are left open at one end of the rooms creating a corridor so that people going form one room to another walk through the classrooms. These two unusual physical features contribute to increased visibility of teachers and generally facilitates sharing of materials, ideas and expertise.

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1 Berlak et al.(1975) have written a more complete description of how teachers in open classrooms use a variety of criteria and no simple formulae for determining appropriate action in performing their teaching duties. They identified several continua which teachers use when making pedagogic decisions about each event in their classrooms.

The classroom space is organized primarily into work areas where small groups can work on a variety of activities which go on at the same time. In most rooms, children are expected to do some work outlined by the teacher, but they are also allowed to choose many activities both with the teachers' help and on their own. Materials are readily available to children and tend to be organized according to subject areas or type of activities for which they will be used. Children are familiar with the materials and their use. There are no individual desks in the rooms but children have personal cubbies in which they can keep their belongings and ongoing work. Most activities occur at tables which seat 4 - 6 children or in carpeted areas. Where children sit usually depends on the nature of the activity they are doing and friendship patterns. Displays of children's work and ongoing projects are important in all the rooms.

While the children have more freedom in terms of choice of activities, what is considered legitimate work, movement around the room, and social interaction than children in traditional classrooms, there are many structures and expectations within the rooms which guide their behavior and learning. For instance, children are expected to complete a certain amount of "work" each day or week; the quantity varies among children and teachers.

Most classes have morning orientation meetings when the children arrive. The teachers outline the day's activities, discuss new or continuing activiites and outline their expectations of the children for the day. All rooms have a carpeted area, larger than other areas which is used for meetings. There are also other meetings at transition points during the day. One often finds lists of activities in the meeting area where children sign-up for or are assigned activities by the teacher. Generally, time is structured into large segments around which children organize their day.[2] For instance, there may be quiet times and relatively noisy times, times for specific kinds of activities(e.g. reading or math) and times when children are free to choose from a wide variety of activities. But at all times, the teachers try to convey the expectation that children should be actively involved in some kind of purposive activity and when children do not conform to this teachers intervene. The teachers also expect children to put energy and effort into their work. If they do not, teachers offer guidance and help motivate and focus the children. Child are expected to take responsibility for the room, its materials and care. Time is set aside each day for this purpose.

The curriculum in each of the rooms takes many forms. It includes activities which represent most of the subject areas: math, science, social studies, reading, language arts, art, dramatic play and others. Teachers rely on commercial and standardized curriculum materials especially in the areas of reading and math and they also develop many of their own materials and activities. When commercial materials are used, many other kinds of activities are also used to facilitate the development of skills and rarely would the same materials be used in the same way with a large number of children. The teachers recognize that primary school children require many concrete experiences to understand concepts and develop skills, and materials and activities which encourage direct encounters with the world are encouraged. Whenever possible, children's experiences are used as a basis for projects(often called integrated curriculum units) into which skills are integrated. In each of the rooms, one finds ongoing projects which have been developed by the teachers and children. The teachers feel these projects help children see the relevance

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2 There are specific times for curriculum specialists(e.g. art teacher) which sometimes interfere with the continuity of the children's activities. This will be discussed in section III.

of their their work to their own lives and also develop a need for learning new skills. A common project theme is the various countries in which the children have lived before coming to HPS. Teachers vary a great deal in their reliance on the project method for helping foster skills and on the degree to which they try to systemize children's learning. Most rely on skills work, the project method and free-play. They try to keep informed of individual progress and current needs when assigning specific work. Generally, children are required to do some reading and some math each day. What constitutes legitimate reading and math activities varies from room to room. The teachers try to take into account each child's own learning style and what he or she can handle comfortably when assigning specific tasks. In some cases reading and math are organized around more formal and closed lines than are other activities. This often depends on how far a teacher has progressed from traditional to open education in their classrooms as well as on individual children's needs for direct guidance and structure. While it is recognized that children learn from mistakes, the goal of the assignments and activities is that the children experience success and feel positive about learning.

The teachers generally have a non-authoritarian relationship with the children. However, they do represent the classroom authority who set the general mood and expectations of their rooms, set limits and create structures which define the range of acceptable behavior, and determine the general content and nature of the learning which occurs. Their relationships with the children tend to be respectful and warm. Children are treated as individuals; they generally feel they can express needs and concerns to their teachers but they also know that the teachers do not allow certain kinds of behavior and have expectations of them which they can reasonably attain. They also know that there are some things they have to do sometimes which they would prefer not doing. In many ways, it would be accurate to characterize the room as "child-centered" but "teacher-directed" because it is the teacher's responsibility to determine the nature and quality of the learning which occurs in the room.[3]

The class rarely meets with teachers as a whole group except at morning orientation meetings and other organizational meetings throughout the day. Most instruction and guidance of specific activities with the teachers is done individually or more commonly in small groups. The teachers often "float" around the classroom observing activities and individuals, intervening when deemed appropriate or just noting information about individual children or activities for later use. Children spend a lot of their time without teacher supervision. Most of their time is spent involved in specific activities with definite but open-ended guidelines. The teacher is generally available to them when they need help but there are times when the children must wait for assistance because of the teacher's involvement with another task. Teachers often suggest that children seek help from other children when appropriate. In most cases, the teachers do not expect children to accept their authority blindly but feel acceptance should come from reasonable demands which children can legitimately meet and understand, and from the respect which the teachers hold for individuals(as adults relating to children rather than as equals with the children).

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[3] Bussis and Chittenden(1972) have characterized the pedagogic orientation of the classrooms in this manner. They point out that much of the current literature on open education fails to identify this crutial characteristic(teacher-direction) in the open classroom which accompanies the child-centeredness.

The above description of the room's general atmosphere, structures and curriculum represent the ideal toward which most of the teachers at HPS are working. Well-functioning open classrooms do not just happen. They are attained in varying degrees depending on the expertise of the teacher, the degree of the teacher's committment and understanding of open education, the particular group of children, and the mood of the children and teacher on a given day. In most rooms at HPS, a large part of the beginning of the year is taken-up helping children learn the structures and expectations of the teachers, and how to take responsibility in their work and the room. Because most teachers do not get an entirely new group each year, the orientation process at the beginning of the year is greatly facilitated.

2. Major classroom roles of the teachers

With this general description of the classrooms at HPS, it is now possible to turn to the specific role performed by the teachers in their classrooms. Most of their roles fall into two major categories, those which involve overseeing the general functioning of the classroom and those related to overseeing the learning of individual children. While it is difficult to separate the many relationships between these major roles, for purposes of discussion the division is helpful.

The first of the two major roles performed by the teachers in their classrooms, overseeing the general classroom functioning, involves provisioning the room with materials, organizing the activities, deciding ways to extend learning, and planning ways to better structure the classroom. It is performed during, before and after the school day, directly with children and in preparation for them. For instance, a typical teaching day begins approximately a half-hour before the children arrive at school when the teachers prepare their classrooms for the day. They might make charts of the day's activities which will be used at the morning meeting, gather and put out materials for the children's use, or plan specific activities for specific children or groups. Other aspects of this task include: making sure activities are running smoothly and progressing well; making sure children are involved in their work; introducing new materials and encouraging their appropriate use, structuring new activities and ensuring continuity of activities and learning; planning and regulating the general organization of time throughout the day; mediating disputes; and fostering positive peer group relationships and cooperation among the children. Most teachers estimate about 50% of their time in their rooms is spent overseeing its general functioning. They also spend an inestimable amount of their out of school time preparing for this role.

The morning orientation meeting illustrates the teachers' role in establishing the general tone and organization in their classrooms. They determine the general content of the meetings. Children are given an outline of the day's requirements and activities so that they can plan their time carefully. Specific problems which have arisen the previous day are discussed and plans are made for alleviating them. Teachers get a general sense of the children's mood and individual goals for the day. They use this information throughout the day for determining what direction and guidance they will provide. Each class has developed specific rituals for the morning meeting which generally reflect the teacher's own teaching style and philosophy. For instance, some groups sing at every meeting because of the teacher's own interest in music; other classes share experiences that happened outside of school because of the teacher's desire to emphasize the relationship between the home and the school.

Most teachers have other class meetings throughout the day. There is

a great deal of variation as to when and how these meetings are organized. Often there is a meeting just before the children leave for the day when they discuss their day and show their finished work to others. This kind of discussion is encouraged to help children focus on their recent experiences and learn to plan and organize their time more effectively in the future. Some children discuss what they hope to continue with the next day. It also gives them the opportunity to discover what other children in the class have been doing. Some children may decide they would like to try another child's activity and they will know whom to go to for help. Another reason for sharing their finished work is to help them learn that when they have worked hard on an activity, others will be interested in and value it. This is one of the ways many teachers help children establish high work standards and a sense of accomplishment. Rather than giving grades or external praise to children for their work, teachers often utilize the responses and interest of others in an individual's work as a means of stimulating personal satisfaction for one's accomplishments.(In some rooms displays of the children's work around the room serve similar functions as those of showing work at class meetings.)

The teacher performs an important role in leading the meetings and modeling the kinds of behavior and responses they hope to encourage in the children. The complexities of this role are often overlooked. It illustrates how teachers structure their classrooms so that children can gradually assume more responsibility for the room's functioning. The meeting is one way the teachers offer children the opportunity and means for taking initiative and functioning as autonomously in the room.

Another way the teachers oversee the classroom is by spending time observing what is happening in the room, with individual children, small group projects and the general work atmosphere. This is often called the "floater" role of the teacher. They may move around viewing activities in various areas at regular intervals, gathering information, intervening when children are unable to proceed on their own or when conflicts arise. Often teachers' actions are preventative in nature, i.e. helping to prevent conflict or frustration before it arises or insuring continued challenge on a given activity before children lose interest. Teachers may remind children of rules or work requirements which they have not completed. In these ways, teachers help children get involved in their work, take responsibility for their actions and learning, and learn ways of functioning comfortably in the classroom with each other.[4] This role is especially important at the beginning of the year when children are developing skills for functioning independently. Teachers gradually spend less time floating and thus, free-up more of their time for more extended periods of work with individuals or small groups.

It should be pointed out that the amount of time the teachers spend helping children learn to take responsibility amd work independently varies a great deal from child to child. Some children arrive at HPS with little need for this kind of training. They know how to use materials, make choices, and pursue a topic. In these cases, the teachers do not spend a great deal of time or energy directly helping these children to function in the open classroom. The regular meetings and other classroom structures are sufficient to orient these children to the room. There are children at the other extreme who have little experience or ability at regulating themselves and need a great deal of help focusing on an activity, and learning how to make decisions and work independently. The teachers work much more closely with these children while

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4 One interesting study of British open classrooms(Resnick, 1974) found teachers spent a large number of their interactions with children performing functions of this type. The other major category involved direct teaching and developing of skills.

performing their floater role, especially when they first arrive at school. Most children fall somewhere between these two extremes. It is the teacher's role to adjust his or her expectations depending on the individual child's abilities. Teachers say that they find a great deal of variation from year to year as to the degree to which the children as a whole can orient themselves to the classrooms. Thus, the amount of time teachers spend with individuals and the degree to which they structure the room at the beginning of the year depends on the needs of each new group of children.

Observers often overlook the complexities of the teachers' general overseeing role because once the children have begun to assume responsibility in their rooms the structures gradually become somewhat self-sustaining. In fact, one result of the teachers' performing this role well is that gradually more and more of the teacher's time is freed-up from classroom maintenance, overseeing, and transferred to other functions such as direct teaching, individualizing curriculum,and developing new curriculum projects.

While all of the teachers at HPS perform many tasks overseeing their classrooms, there is variation in the degree to which they are effective(teachers). How well a teacher does seems to be correlated with the degree to which they have analyzed the components of this role in creating a well-functioning open classroom. At HPS, the teachers who are most skillful tend to have the rooms which are the most orderly, have the most interesting and carefully organized displays of the children's work and study topics, and seem to have the most children involved in task-focused behavior within several weeks after the year begins. The teachers who seem less skillful in this area have rooms which fall into two categories. One group of rooms is somewhat sloppy and chaotic in terms of materials and displays and there are often many children who are not very involved in purposeful activities. These teachers often have not considered how one helps children assume increasing responsibility; they assume the children will arrive at school ready to assume full responsibility. The other group of teachers who have trouble with their general overseeing role rely very heavily on standardized activities, careful regulation of the children's time(more assigned, less open-ended activities), and less study of topics as the basis for integrated curriculum activities. These teachers use many more traditional activities and structures than the other Hanscom teachers, even though they would be categorized as innovative on the open end of the pedagogic continua when compared with traditional teachers.

In overseeing their classrooms, the teachers have made a major shift in how they view their roles and set priorities from traditional teaching. While traditional teachers spend time organizing the room and materials, for the most part, if the children are doing their assigned tasks(generally in large groups) the teachers spend little time overseeing the room. Materials, group dynamics and helping children learn to organize their learning and take responsibility for the room, are all secondary to the teachers' major role, namely teaching.

The HPS teachers do not minimize the importance of this second major role, "teaching", or rather,overseeing individual learning. However, they define learning and teaching in a much broader fashion than traditional teachers do. They see it in relation to their role of overseeing the classroom, realizing that the two roles are intricately connected. A room where children cannot use materials appropriately, cannot work together amicably, and are not able to make decisions about how to work on an activity is a place where teachers have little time to direct individual learning. In situations where this is the case, both the teachers and children are constantly frustrated and it is difficult for the teachers to individualize children's learning or encourage them to pursue their own interests as a basis for attaining new competencies

and skills.

The HPS teachers perform a variety of roles associated with overseeing individual learning. There is variation among teachers in how they view these roles philosophically and in how they interpret them in practice. In most cases teachers have selected a combination of both formal and informal methods for overseeing learning, with emphasis on informal. It should be pointed out that a variety of methods of instruction have been labeled "individualized." One common practice involves having all children go through the same materials but at different paces depending on the speed at which they can master the new skills. This approach assumes there is one set of material or information which must be learned in a similar sequence by all children. It generally allows children to work on their own or in small groups, but the materials themselves determine the instructional guidelines concerning what each child will be doing at a given time. In some cases, the HPS teachers use individualized materials of this type, when they themselves fell inadequate to systemize a child's skills learning. This could happen for a variety of reasons(see below).

All the teachers constantly collect information about the abilities and needs of each child. This is seen as a key factor in making decisions about individual learning. They do this by making mental and occasional written notes as they "float" around the room; having conferences with individuals to see what they have been doing and make decisions about future needs; gathering information at meetings when children discuss their activities and show their work. Occasionally, teachers give children informal tests especially in reading and math at various points during the year for diagnostic purposes. There is quite a bit of variation as to the amount and kinds of written records each teacher keeps on the children: some keep representative samples of the children's work throughout the year so progress can be directly observed and assessed; some have children keep personal journals of their work and activities which provide a record for teachers, children and parents. The teachers utilize the information collected about each child's intellectual, social and emotional development in making decisions about where and when to intervene, how to intervene and how effective previous intervention has been. It helps them determine how each child learns best and what experiences are most likely to lead to feelings of success and competence. The effect of this kind of constant diagnosis and evaluation of individual learning is that teachers have a wealth of information at their disposal from which to make sound educational decisions about children's needs and what the teachers' role should be.

In practice, the HPS teachers meet with varying degrees of success in utilizing this information to direct learning. Probably this is the result of several factors. First, the degree to which teachers have time to collect and utilize this information depends on the degree to which they have succeeded in creating a well-functioning classroom where children can function independently. Second, the degree to which the teachers can translate the information gathered into actual teaching strategies depends on the teacher's knowledge of a wide variety of curriculum materials, teaching techniques, and their ability to relate effectively to children at the child's intellectual level. Third, some teachers have developed more effective ways of organizing the children for specific learning activities than other teachers. For instance, the more effective teachers have a better sense of the kinds of things which they themselves must help children learn and those which children can teach each other equally well(vertical age groupings are invaluable here for teachers who are able to utilize the children as teach-

ers); they recognize that some skills can be taught effectively in small groups rather than need to be taught to each child individually; they realize that some skills grow naturally out of the children's projects and work with materials while other skills are more easily acquired if directly taught. Even with the information they collect on individuals, all the HPS teachers are constantly trying to work out an effective balance between direct teaching, and independent exploration and discovery by the children, in ways that better meet the learning needs of the children and do not put undue demands on the teachers' time. Because they recognize that it is not possible to meet all children's learning needs equally well at all times or in the best way, they are involved in constant assessment of learning priorities for individuals and the class as well as frequent compromises about what will happen as opposed to what they would ideally like to happen. Thus, collecting the information about individuals is just the first step in the teachers' overseeing individual learning.

The teachers have adopted a variety of techniques and roles for ensuring that children are learning "important" skills. Because they all emphasize the importance of the children's becoming numerate and literate, they spend a significant amount of their actual teaching time on instruction in the areas of reading, language arts and math.[5] Thus, the teachers often perform the role of instructor and overseer of basic skills learning.

On the more formal side of overseeing skills, the HPS teachers use a variety of standardized curricular materials, especially in reading and language arts. Some children are given workbooks or parts of themwhen it is felt they need practice with specific skills; formal reading programs are often used with beginning readers. No teachers seem to use the same materials or the same methods of employing them; none rely solely on one set of commercial materials nor do they use the same materials with all children. The school has recently purchased a language arts curriculum which consists of a variety of tasks cards at differing levels which encourage projects, creative writing and experiential methods. Most teachers designate specific reading and language arts requirements for child each day or week; some have designated specific times of day which are to be used for "work." Math is also approached with some formal curriculum materials used for teaching skills, but it is given less emphasis than reading in most rooms.

These formal practices of teaching skills have led to a pedagogic conflict for many of the HPS teachers. Despite their often stated goals of interrelating work with play, subject areas with each other, and skills with concrete experiences, in practice these goals are often undermined. A work-play dichotomy is created and many children learn that reading and math are among the most important activities in their rooms. As a result, other kinds of activities are often taken less seriously than they should be. The teachers feel that this emphasis on skills is justified given the brief stays of most of the children at HPS, the expectations of the parents and society, and their uncertainties about their own abilities to ensure the development of these skills through informal methods alone. In addition, the teachers feel the time that would be required of them in preparing and overseeing materials and activities to teach most math and reading skills informally would be prohibitive. Most of them already spend large amounts of their time outside of school developing the informal curriculum which now occurs.

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[5]The HPS teachers view these two skills in broader terms than do most traditional teachers. They consider children's ability to use skills in practical situations as well as the enjoyment they derive from new masteries as important components of skills development. They do not feel children should be pressured into learning skills before they are ready. Many factors are considered in determining when it is appropriate to help children learn new skills.

Many methods are employed on the more informal side of overseeing skills. For reading, there are commercially-made and teacher-made games which reinforce new skills which have been learned. Some children keep dictionaries of new words they have learned to read and write for use in future writing. Children often record information about their daily experiences in personal journals. The teachers often integrate reading and language arts into projects involving science, social studies of other subject areas. Communication skills are stressed in all activities. For math, there are many kinds of manipulative materials and games which the children use freely. With math, as with reading, the teachers use every opportunity to relate math skills to the children's experiences. For instance, a group of children doing a project on spiders used a variety of library books and magazines to collect information about them. They also kept a class book about their discoveries which was illustrated by their own drawings. They counted, sorted, measured and compared the spiders with other insects. Children take frequent field trips planned by their teachers which become the basis of study, around which new reading and math skills are organized. Most classes go on overnight camping trips with their teachers, and many skills are integrated into this experience. In organizing projects, the teachers perform a variety of roles: organizing activities to stimulate interest and help children define and focus their interests; advising and consulting to help children sustain and expand their interests; define and solve problems; and instructing when children need some specific skill to help them meet individual goals.

In overseeing individual learning, the HPS teachers work directly with children in several ways. They often work with a small group for several days on a particular skill at a specific time. In this case, the teachers generally have fairly specific goals in mind which they hope to accomplish in the designated period. They generally disband when the stated goals have been accomplished. The teachers also help individuals as they float around the room overseeing its general functioning. All the teachers' "teaching" time is not spent on reading and math activities. They also help children use new materials and learn new techniques with familiar materials. They ask children questions about their work which may lead to the formation of new questions for study or the need to use an already mastered skill. By encouraging children to talk to them about their work, the teachers also help the children learn to conceptualize and articulate concrete experiences, a very important skill for children of this age.

With this general description of the major aspects , the teacher's role in overseeing individual learning, it is possible to summarize its major components. First, the teachers constantly collect information about the children's abilities and needs. Second, they evaluate (generally by informal means) students abilities, how current methods are working, what is needed next. They make specific assignments to children for specific skills, activities, for open-ended activities, and for what needs to be done next on a given project. They offer materials which will help a child solve a particular problem or learn a new skill. They help children define problems and learn means of solving them. They make suggestions about more effective ways of continuing an activity. Teachers help the children define and extend interests. Often, this is done by organizing starting points,i.e. a field trip which will lead to a new project in the classroom or a new material. They encourage children to seek information, ask questions, record experiences, help and cooperate with each other. Rarely do teachers intervene or direct children for a single purpose; nor is it done without a sense of individuals and their needs. In a similar situation with two children, the teachers would probably ask different questions or offer different

suggestions because of their cumulative knowledge of each child. The process is particularistic in that each child is seen as in individual even when the teacher has many common goals for all children.

The teachers generally recognize that the children are learning when they are not directly involved with a teacher; that there is rarely one experience that all children must have to learn a particular skill; that two children rarely learn the same things from the same experience; and that few skills be they academic, social or emotional are learned in a simple linear progression. Because of this, the teachers try to make informed decisions about how they can best perform their teaching functions, but they know they are only a part of the process. The overall environment(not just the teacher's actions) remains an integral part of the teaching-learning process.

Another aspect of the teachers' role in the classroom is important. Because the teachers have delegated to the children a substantial part of the role that traditional teachers perform(e.g. letting them teach each other, letting them make decisions about what they will do and when, letting them choose whom they will work with and how jobs will be assigned), peer groups and peer relationships take on additional power. The teachers must be skillfull in handling group dynamics. They must help children form effective peer groups, help children work out problems which arise within their peer groups, find ways to help children use peer pressure in effective ways, and balance individual needs of children with those of the group. The development of social skills is seen as a legitimate role of education. The teachers spend a lot of time, especially at the beginning of the year, performing this role. They have found that smoothly functioning peer groups do not develop automatically, and that without some degree of harmony in working relationships a huge amount of both the teachers' and children's energy goes into struggling with interpersonal relationships.[6]

Finally, the teachers work with other adults in their classrooms. They include: teacher aides who are shared by the teachers and perform a variety of teaching and non-teaching roles, student teachers, volunteers, curriculum specialists and tutors. In most cases the teachers have the authority to decide who will and will not come into their rooms and the roles they will perform. Generally, they welcome the additional input other adults can offer the children, but in order for this to be done smoothly, the teachers must have developed ways of delegating roles, directing other adults and communicating their goals. Each teacher has developed his or her own style for working with these people.

The other adults who work in the classrooms with the teachers as well as relationships and structures outside the classrooms have led to a complicated network of mechanisms within the school which affect the teachers' performance in their classrooms. These factors will be discussed in Part III of this paper. We now turn to the teachers at the River Alternative Elementary School.

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6 Sussmann and Schorr(1973) have elaborated the complexities of group dynamics and the major aspects of the teacher's role in constructively directing them in the open classroom.

B. The River Alternative Elementary School

1. General atmosphere and pedagogic approach in the classrooms

The classrooms at RAES are very similar in organization, structure and teacher tasks to the classrooms at HPS. Therefore, only major differences between the two schools will be described here.

An obvious physical difference between the classrooms at the two schools, is that RAES is in a much older, three-story structure with self-contained classrooms that have access into large hallways. Materials are less abundant; there is less commercially made furniture or supplies; teachers and parents have spent a lot of time making furniture and materials. The teachers have had to exert more energy creating orderly, pleasant and well-provisioned learning environments than have the HPS teachers. The school is divided by the age levels of the children: kindergarten-second grade on the first floor, third-fifth grades on the second floor, sixth-eighth on the third floor. Teachers on each floor meet regularly and try to pool talents and do shared activities.

The general atmosphere in the classrooms is similar to that of the HPS classrooms at comparable age levels. Teachers have similar goals for their rooms and somewhat similar images of the nature of well-functioning open classrooms. One can generally say that the RAES teachers fall slightly further along the pupil-oriented, informal and open continua than the HPS teachers. For instance, children often play a larger role in determining the kinds of activities and major themes in the classroom. Teachers are less concerned about national age norms for such things as when a child learns to read. More time is allowed, especially in the younger grades for children to engage in free-choice activities, with less teacher intervention than one might find at HPS.

These differences in pedagogic approach between the two schools can in part be explained by the origins of the innovations and the differences in the student populations. Because the RAES teachers were committed to changing traditional practices from the onset, they are often more willing to experiment with alternative structures and varying ways of offering children freedom than are the HPS teachers. Because the RAES population is much more heterogeneous in every way than the HPS population, the teachers have to allow for a wider variety of learning styles and developmental levels in order to respond to children at their own levels. Despite these differences, it is interesting to note that after several years of innovation at both schools, the teachers have arrived at many similar ways of organizing the classrooms, developing the curriculum and achieving goals. These include: morning orientation meetings, a combination of formal and informal materials, free-choice and assigned activities, and a generally child-centered but teacher-directed learning environment.

One problem which the RAES teachers were forced to confront when the school began was that all the children were new at the school, had not experienced open education and had developed few if any of the skills which are necessary for functioning independently and resourcefully in the classroom. They were accustoemd to being told what to do, when and how. Many of the teachers, especially in the older grades were unprepared for the children's responses to their new classrooms. The first months at the school were often chaotic. All the teachers' major functions in their rooms were greatly strained. In similar cases at other schools, many teachers have quickly reverted back to traditional approaches;[7] at RAES the teachers kept sight of their original objectives and goals. This

[7] Barth(1972)describes one such innovation which led to rapid return to traditional practices.

of course, has become less of a problem. Now, there are always several children in each class who have become competent at functioning in open classrooms and help orient the others.

2. Major classroom roles of the teachers

The upper grades(above third grade) have had to make the most adjustments to the school's original goals for the classrooms. It is in these grades that one finds some major shifts in the teachers' classroom roles from those at HPS.

Initially, the children in the upper grades had a long history of experience in traditional education before entering RAES. A high proportion of them had difficult school experiences and saw school in a very negative light.[8] The ranges of ability and interests were enormous. The teachers were not adequately prepared for the children's need for a gradual transition to the open classroom approach. Several of the teachers, especially the least experienced ones, had very "romantic" notions about how the children would respond to their new freedom. They expected the children to quickly become more positive about school, want to work on projects of their own choosing, and appreciate the freedom which they were offered in the new setting. But, the children were generally unable to cope with the new situation. As the teachers demonstrated they would not take the role of authoritarian, the children quickly exploited the freedom and saw it as license to do nothing or to "mess around" randomly. For many students, there seemed to be no intermediate way of relating to school - either they were controlled and regulated almost completely or they could do what they wanted, when they wanted.

The teachers realized(as many idealistic open classroom teachers have before them) that initially the children needed much more traditional structure than had originally been anticipated and that the teacher's role would have to altered. They began by tightening up the structures and making much more rigorous demands on the children. In one case, the teacher was unwilling to provide the kind of authority and direction which was required to maintain order and direct learning. Two of the teachers in the upper grades did not return to the school the second year.

As the children began to adapt to the open classrooms, increased opportunity was offered to develop their own interests and take responsibility, but they continued to have very specific work requirements. Attaining an appropriate balance between personal choice and external demands has remained a big issue in the upper grades at HPS. The teachers continue to redefine and change their roles. The older children seem to still need some variations in their school environment from the younger children. The teachers have come to attribute the different needs to developmental differences in the children which arise naturally with age differences.

At this time, the teachers in the upper grades have created a more clear-cut work-play dichotomy than have the lower grade teachers. Specific work requirements as well as optional free-choice activities which relate in some way to the educational goals of the teachers are clearly outlined for the children. There are two ways the teachers have chosen to structure the children's work: to have a contract system which is written by the teacher and child once a week, or to have specifically designated work times for extended periods each day. The contract system outlines what the teacher and child agree the child will accomplish during the week. The child is responsible for regulating his or her time

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8 An interesting question arises from the number of children RAES attracted who had previous educational problems. Why do parents choose to send their children to alternative/innovative school environments? Certainly this is an issue innovators must address when planning new programs.

in such a way that the work gets done on time. At the end of the designated period, the child and teacher meet to go over the child's work and decide on the next set of tasks. This method of organizing children's work can be highly individualized. It requires a high degree of expertise on the part of the teacher to help the child select challenging and appropriate activities. To use a contract system well, teachers must have information about each individual, what he or she can accomplish successfully during the week, what his or her interests and learning needs are. Generally, the teachers propose a variety of kinds of work including skills in reading, language arts and math as well as research and project-type activities. They often rely more heavily on commercial materials than do the teachers in the lower grades. Because the teachers continue to spend a large part of their time overseeing the classroom and planning for a rich variety of projects and free-choice activities, the contract system is an intermediate level of implementing open education because both the teachers and children lose some of the flexibility with the curriculum which less formal methods provide. But where on the pedagogic continua the contract method falls depends a great deal on how the teacher uses the system. At RAES, it has tended to lead to less consistent interrelationships between formal skills and childrens' own interests. Free-choice times tend not to be used as much as a tool for facilitating learning as it might and it is often used as a reward for finishing work.

Last year, the upper grades became involved in a specially funded work-study program which allows the children to leave school two days a week to work in jobs throughout the community. The school has hired a coordinator to work with the children on-the-job and the teachers also work closely with the program. It has required that the teachers develop a new role, that of helping children learn to relate to the outside community. The teachers have also tried to use the children's work experiences in the classroom as a basis for curriculum projects. It has provided an impetus to the teachers to facilitate more integrated learning in their classroom.

The differences in the upper grades from the lower grades are more a matter of degree than difference in pedagogic approach. The teachers at all levels perform similar roles and functions. In the upper grades the teachers have developed ways of performing the roles which take into account the developmental differences of older children. The other consideration which has influenced the teachers is their awareness that most of the children will enter high schools which are quite traditional. The teachers want to facilitate a successful transition for the children to more traditional demands. While they would consider skills important no matter where the children were going, they are working under a time deadline which the lower grade teachers do not have.

One other difference at RAES has lead to slightly different emphasis on teachers' roles than at HPS. The teachers at RAES have spent more time on group dynamics and social studies activities which contribute to understanding of differences among people in life-styles, race, religion and sub-culture. They have especially focused on promoting racial understanding. This emphasis is due to the wide diversity of the student population and the school's commitment to helping children learn tolerance and respect for those different from themselves. Especially when overseeing the general classroom functioning, the teachers place great emphasis in helping children develop interpersonal skills. Because the children have freedom to interact and make choices within the room, possible conflict and prejudices are readily identified and dealt with by the teachers. At HPS while disagreements and prejudices arise and are dealt with by the teachers, they rarely involve the same degree and scope as those at RAES. In traditional classrooms, because the teachers are generally the center of attention, the children's hostilities do not emerge until recess on the playground

where teachers are rarely available to offer guidance. The teachers at RAES consistently agree that they have made progress in this area both in performing their own roles better as well as helping the children work harmoniously together.

These are the major differences between the teachers' classroom roles of RAES and HPS. Considering the differences in the student populations and origins and goals of the innovations at the two schools, it is surprising that the teachers' roles are so similar. There are most striking differences between the two schools in the teachers' roles outside their classrooms.

C. Comparison of teachers' tasks and functions in traditional and open classrooms

Because of the many differences between the roles of traditional and open classroom teachers have already been discussed, only the key shifts and changes will be described here.

The innovative teachers do not rely on standardized grades or formal tests to make educational decisions about children as traditional teachers do. They treat children in a particularistic as opposed to universalistic fashion. The children's learning is not seen in terms of mastery of isolated skills for a test but as a complex set of interactions with the work which would help develop the child's ability to deal more comfortably and confidently with the world and its demands. As a result, the innovative teachers rely less heavily on formulae or standardized procedures in performing their roles than do traditional teachers. It is their goal to treat each child and each situation as a unique combination of actions. The result is that the education is much more individualized for the children and in many ways more demanding for the teachers than in traditional classrooms. It can probably be said that good open teachers need all the skills that good traditional teachers have but they also need a wide range of additional aptitudes and skills which will be outlined below. This fact has led some but not all proponents of open education to claim that to be a good open classroom teacher probably requires being a good traditional teacher first. While many HPS teachers were traditional teachers first, most of those at RAES were not.

In open classrooms, teachers view their role as one of stimulating the children's active involvement with the environment, helping them develop deep interests, helping them experience mastery and a sense of being able to affect their worlds. Formal skills are seen as but one way of helping children experience and develop these things. So, the teachers divide their time differently and emphasize different tasks and activities for the children than traditional teachers. Success is defined in terms of the children's individual growth rather than scores on a test and getting the children to learn skills as quickly as possible, criteria traditional teachers often employ. As a result, the innovative teachers no longer perform the self-selection function which traditional teachers perform. Children are no longer formally separated out into successes and failures, the goal is success for everyone. Many educators claim that open classroom teachers merely delay the selection process for the children, that eventually society requires that people be sorted-out for their adult roles. But open educators argue, as does Piaget(1973), that the longer the selection process is delayed, the more opportunity will the children have to develop to their full ability, and therefore have a more equal chance of being fairly evaluated when selection does occur.

There are similarities in the roles of traditional and open classroom teachers. First, both assume a role of leadership and authority in their classrooms, although there are differences in how they interpret this role. Second, both realize that they have knowledge of skills which the children do not have. The teachers make decisions about when it is appropriate to help children acquire these skills. Third, both are responsible for creating an orderly, safe and secure environment for children. Fourth, both are assuming responsibility for preparing

the children for their adult lives, although here too there is a differing opinion as to how this is best accomplished and what it entails. Fifth, they are both public servants with responsibilities to the community and the parents. Finally, there are general housekeeping functions in all classrooms such as: coordinating children's encounters with other adults, overseeing maintainance of the room, and doing basic book-keeping.

The differences between the traditional and innovative teachers stem from major differences in their pedagogic beliefs. Even when one finds similarities in practices between traditional and open classroom teachers, they often stem from very different assumptions about learning and their roles as teachers, and are often practiced for very different purposes and lead to very different outcomes.

The HPS and RAES teachers often face stresses and strains in defining and performing their roles with which traditional teachers do not have to cope. It is much more common that they must explain and justify their teaching practices to others because they are different from the familiar and less easily understood. Also, the teachers are constantly in a state of change and uncertainty as to their roles because of the flexibility built into the open education model. They feel there are more opportunities to make mistakes in open classrooms. Despite the added pressures, the teachers at the two schools unanimously prefer their current teaching approaches to more traditional models.

D. Skills and aptitudes required of the teachers in performing their classroom duties

From the preceding description of the teachers' classroom roles at HPS and RAES, several major conclusions can bedrawn about the skills and aptitudes which are most important in performing their duties. First, the teachers must be autonomous and independently functioning individuals. In fact, when the teachers were asked what aptitudes they felt were most important to them in performing their duties, this was the most frequently cited quality. One principal also put this high on the list when describing what he most valued in the teachers in his school. Autonomy and independence are required because the teachers make constant decisions throughout the day about almost all aspects of their classrooms. They rarely rely on ready-made solutions or simple recipes for action; of course, with experience some decisions become easier to make and some even become almost automatic. They must be ready to set priorities and change previous decisions at a moment's notice. They also must have confidence in themselves and in their role as teacher.

Second, the teachers must be experimenters and diagnosticians, and view their classrooms as laboratories. They must constantly form hypotheses about situations and children, test and evaluate the hypotheses, and then form new hypotheses based on the results. Rarely does a solution for one situation work the same way in another situation. There are often situations where there is no "right way" or any number of appropriate ways to procede. Thus, the teachers need to be able to tolerate ambiguity, and remain flexible and open to change at all times.

Third, the teachers must have a wide range of knowledge upon which to base their experimentation and classroom decisions. Foremost on the list is a comprehensive understanding of child development: how children learn in general; the characteristics of the various stages and ages of development; individual differences in how specific children learn; and also, each child's current level of development and developmental needs. Curriculum materials and activities are selected with an understanding of a child's developmental level. The kinds of demands teachers place on the children and the kinds of interventions

which occur at an individual and group level are dependent on this knowledge and how it is applied.

Open classroom teachers must also be knowledgeable about a wide-range of curriculum materials and activities, both standardized and informal. They must be familiar with concrete, manipulative materials. They must be able to use them in flexible and innovative ways and to create new materials when the need arises. They must be familiar with the basics of formal skills and know a multitude of ways of facilitating children's development in these areas.

Fourth, the teachers have a deep sense of commitment toward what they are doing. As is clear from the description of their classroom roles, the teachers spend a great deal of time and energy creating and maintaining their rooms. There are also times when they are unable to meet all the demands which arise or unable to meet them as well as they would like. Without a deep sense of commitment, the teachers would often view as defeats, situations which they now describe as challenges. Many of the teachers at HPS and RAES have become involved in conducting workshops outside the school to help more traditional teachers develop the kinds of innovative practices which they use. This is a further indication of their commitment to what they are doing and their desire to foster change in other

Fifth, the teachers must be active learners themselves. Most have had traditional school experiences, where the teacher played a very different role from that of the open classroom teacher. They have had few if any role models of either teachers or learners functioning as they do in open classrooms. Therefore, they must be able to construct roles on their own which are very different from their experience. This process is greatly facilitated by the ability to learn independently and actively, through constant questioning, exploration and problem solving at their own level. Many critics of teacher education have seen lack of emphasis on developing this ability in teachers a major shortcoming of most teacher training programs. (Sarason, 1962; Lortie, 1975)

Finally, and perhaps most important, is the quality of the relationships the teachers establish with children. They must be able to respect children as individuals with different strengths, interests and learning styles; to relate to the with honesty and openness; to express warmth and acceptance as benevolent but responsible adults; and to give up some control and power to the children. This is not meant to imply that the teachers do not maintain their status as adults who set limits and expectations, make demands, or act as authorities(not authoritarian in the classroom, as it has often been misinterpreted to mean in this country. At both schools, most teachers have succeeded in establishing a balance between these two, occasionally conflicting, factors(see Bussis and Chittenden, 1970).

The teachers at HPS and RAES can be characterized as having the aptitudes outlined above. There is a great deal of variation among them in the degree to which they possess and value each one. Most teachers feel that they have many shortcomings in each area and continue to work on them in order to improve their already innovative teaching.

III. Other Components of Teacher Tasks and Their Relationships to the School Environment

At both Hanscom Primary School and the River Alternative Elementary School, the teachers devote many hours each week to tasks which do not involve direct work with children. These tasks play a major role in determining the quality of the teaching-learning process as well as the nature of the school environment. The teachers' roles outside their classrooms fall into three major categories. First, there are tasks which are directly related to teaching and classroom functioning. Second, there are tasks which relate to school governance and the functioning of the school. Third, are tasks which have evolved due to the large number of support personnel employed at both schools. While all three aspects of the teachers' out-of-class roles are intricately interconnected, for purposes of discussion the divisions are helpful. This section describes what constitutes the teachers' responsibilities in relation to these three components at the two schools, and considers how the school environment affects the teachers' performance of these tasks.

A. Hanscom Primary School

1. Tasks of teachers outside their classrooms directly related to teaching.

Most of the HPS teachers spend a majority of their time and energy, when not working with children, doing tasks which directly relate to preparing for the teaching tasks and responsibilities described in Section II. This includes time during school hours when teachers have free periods(e.g. when children are with specialists or are released early two afternoons per week), as well as evenings, and weekends. While the amount of preparation time spent varies among teachers, in part dependent on the degree of experience they have had teaching in open classrooms, teachers reported they spend between ten and thirty hours per week on tasks directly related to preparation for teaching. One second year teacher reported that during her first year, she arrived at school at 7 A.M. every day and rarely left before 6 P.M. in addition to working at home each week night for a minimum of two hours and many weekends.

A major part of preparation time goes into preparing the classroom environment and developing the curriculum. Teachers spend a lot of time organizing the classroom space. Several are aware of the impact of the room's spatial organization has on the children's learning. For instance, a new activity placed in a central place is more likely to receive special attention than one placed in a small hidden corner of the room. Quiet, comfortable places for reading are more likely to encourage reading for enjoyment than noisy, cluttered spaces. Materials arranged in a disorderly fashion are more likely to receive haphazard use than materials which are arranged in an orderly, attractive manner. For reasons such as these, several teachers at HPS often reorganize space and materials in their classrooms. They move or rearrange materials as children's interests change. They make inviting displays of projects to help create and extend interests. Several times a year, they completely reorganize the major work areas and materials in their rooms to stimulate new focal points and interests in various curriculum areas.

There are several other demands placed on teachers related to preparing the learning environment. First, teachers often gather materials for use in curriculum projects. These include: "scrounge" materials which are recycled by businesses, industry, parents of the students, friends of the teachers; inexpensive items such as nails and cooking supplies which need frequent replacement; reference and story books from public libraries which relate to current projects; and, materials for supporting some interest or activity(for instance, shells for children studying the sea shore). Teachers also encourage the children to bring in

relevant materials from home.

Second, the teachers often make materials for use in their classrooms. They make games to support recently acquired skills. They make task cards which will help children extend and redirect current activities or help develop a new skill as part of work with a material. For instance, next to an ongoing project one often finds a collection of teacher-made cards each of which suggests a particular kind of activity which can be done in connection with the project. Some task cards suggest creative writing topics. For many of the teachers, task cards provide a more individualized and open-ended alternative. They also allow for a lot of teacher input without consuming a lot of the teachers' direct teaching time. Teachers also make specific equipment for their classrooms. Children's interests and needs for project materials and equipment cannot be anticipated six months in advance when materials are ordered. Therefore, while the rooms are well-provisioned, new needs often arise which require the teachers to make "improvised" solutions. In other cases, the required equipment is unavailable commercially or prohibitively expensive. Some teachers have built large pieces of furniture for their rooms, including double decker lofts to provide added work space, raised platforms for use as stages, and large room sub-dividers. For some teachers, carpentry has become a necessary craft of the profession.

Teachers often spend time studying topics of interest to the children so that they will be able to stimulate and extend children's work. This involves outside research such as reading, finding people more knowledgeable about the topic, or trying out some activity or material on their own to get a sense of how it might work with the children.

The teachers often establish ties with people and resources outside the school community that can offer the children opportunities for expanded learning resources. As a result of these contacts, visitors with specific skills are often invited into the class to share their expertise with the children. Often the visit sparks new interests and directions of study. In addition, teachers often arrange field trips to settings where children can experience the world more directly. These trips also become the basis of major, new integrated curriculum units.

Another important aspect of curriculum development is the sharing of ideas and resources with other teachers and school personnel. This occurs both formally and informally throughout the school day. The teachers' room is a central meeting place in the school. Because the day is scheduled so that large numbers of teachers have breaks from their classrooms at the same time, communication is facilitated. In the teachers' room, one hears frequent discussions among teachers about curriculum activities in their rooms, new materials, ongoing or new concerns about their rooms or individual children, and also exciting or rewarding classroom events. Teachers also visit each other's rooms if they have heard about a specific activity about which they would like to learn, or if they are "stuck" with some topic or curriculum area for which they need immediate suggestions or help. The HPS teachers rely heavily on this kind of input from colleagues. However, most of them say there is not nearly as much of this kind of sharing occuring as they would like.

The teachers agree that they would like to develop more opportunities for discussion of education and classroom issues. They feel they often discuss daily concerns but need more time to consider long-term goals and pedagogic issues. In one case, a group of six student teachers working on masters degrees from the same college were placed at the school for ten weeks. The cooperating teachers organized a seminar for the students, their supervisor and themselves, where both classroom and more theoretical issues could be discussed. This kind of sharing, and

and risk-taking, is uncommon among teachers in public schools in this country.[1]

In addition to spending large amounts of time preparing and developing curricula for general projects and activities, the teachers spend a lot of time planning skills activities for individual children or small groups. Most teachers plan for formal reading, language arts and math activities on a regular basis. There is variation among teachers as to how much time they devote to this kind of planning as well as their views of the importance of this planning. Some teachers feel it is more important to spend their planning time developing project activities and gathering materials. These teachers are either quite experienced at integrating skills into the project activities, or more commonly, they rely fairly heavily on using standardized curriculum materials in individualizing ways for teaching skills. A majority of the HPS teachers try to balance their planning time between developing projects and planning for children's skill work.

In planning formal work for the children, some teachers write new and original tasks directly into children's personal math or writing notebooks(i.e. home-made, blank books in which children do the activities during their "work time"). This method of guiding skill work provides individualized workbooks for the children. Teachers often write questions of tasks directly related to a child's current activities and interests. They also go through commercial guides, workbooks and tradebooks to find specific curriculum tasks and plan appropriate activities. They prepare for small group instruction and instruction of individual children when special needs are diagnosed. To do this kind of individualized planning well, teachers must spend time familiarizing themselves with new teaching materials and their use. More importantly, they must keep close track of each child's needs, progress and interests.

Part of the teachers preparation time is spent keeping track of individual children's progress on skills and curriculum projects. This can also be considered evaluation and reflection time. Teachers have different ways of accomplishing this task. Some do not spend a great deal of out-of-classroom time, but rather, make mental notes throughout the day which are used when planning, with occasional written notes of major events. Other teachers spend two or more hours per week throughout the year carefully recording information about each of the children and the classroom functioning. They also go over children's work carefully to get direct input on their work and growth. Keeping records increases the likelihood of teacher planning being responsive to individual children's needs. But teachers vary in their ability to collect that information which will be most helpful to them in their planning and in their ability to use the information collected appropriately. Many of the teachers say that they would like to devote more time to record-keeping than they currently do. They say they often find that their records are the first thing sacrificed when they are pressed for time.

As can be seen from the variety of preparation tasks performed by the HPS teachers outside their classrooms, it is a complex and demanding role which requires many skills and resources on the part of the teachers. This role is radically different from that of the traditional teacher. Most traditional teachers spend a bulk of their preparation time grading children's work and familiarizing themselves with the next activities in the standardized curriculum programs used by their children. The HPS teachers take much more initiative, have more autonomy,

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[1] A common attitude expressed about teaching in this country is that once teachers have completed their formal training, they will have the skills required to teach. The need for in-service training and continued learning has only recently been acknowledged. Many Hanscom teachers recognize that discussions of professional difficulties and concerns, and differing points of view and practices among teachers are a legitimate and necessary means of fostering growth, rather than a sign of professional incompetence. It is unusual to find this kind of openness in a public school. In practice, some Hanscom teachers are threatened by these discussions and do not participate.

and do much more experimenting with new materials and ideas than their traditional counterparts.

The teachers are constantly trying to balance the emphases placed on each aspect of preparation. As happens within their classrooms with the children, they make daily choices about the most important ways to spend their preparation time. Each teacher has slightly different priorities which reflect his or her personal teaching goals and previous experiences. And over time, depending on how things are going in their rooms, the emphases on preparation tasks outside the classroom change and evolve.

Several mechanisms have been created at HPS which support the teachers in their efforts to plan and develop the curriculum. These mechanisms reveal the innovative nature of the school's overall environment. They include: the creation of a new job at the school, the curriculum resource person who has established a resource room with many materials, supplies and examples of new curriculum activities; the occasional use of teacher aides to gather materials and plan for curriculum projects; and the offering of regular in-service workshops where teachers within the school with special expertise or outside consultants offer training sessions to teachers on a wide variety of curriculum areas or teaching skills areas. The workshops are generally planned based on expressed interests of needs of the teachers.

One final teacher task is included here because of its close relationship to the quality of the teaching-learning process. Teachers perform a variety of roles related to parent communication and parent education. Teachers choose to work closely with parents because of their desire to involve parents in their children's learning, as well as their desire (to desire) to create close links between the child's school and out-of-school experiences. Descriptive written reports and check lists of skills are sent home twice annually and two official parent-teacher conferences are held at school. In addition, teachers have informal contact with parents and schedule special meetings when special needs arise. The communication process with parents is facilitated by the fact that most teachers have children in their rooms for more than one year which allows for continuity in parent-teacher relationships. When new children arrive at school, teachers often make home visits and the kindergarten teachers visit all the children before or shortly after they begin school. Rarely does a day go by when a teacher does not have some kind of contact with one or more of the children's parents. Teachers also offer occasional evening or week-end workshops for parents in order to help them become more comfortable and familiar with the school and its innovative practices and goals. Parents are encouraged to share special skills with their child's class and most teachers have at least one or two parent volunteers who participate in the room on a regular basis.

The mechanisms for frequent and open communication with the parents have probably facilitated the easy transition of new parents and children to the school and its innovativeness. Parents' initial anxieties which arise when they see a school which is different from those with which they are familiar are quickly identified and responded to. When parents become especially concerned about a practice in their child's classroom, they occasionally go to the principal. He urges them to try to work out the problem with the teacher. If this fails, he serves as a mediator between the teacher and the parents. Because the teachers have confidence in the principal's ability to support them in their work, they are rarely threatened by his involvement. He plays a role which both parents and teachers view as responsive to their positions.

2. Tasks of teachers related to school governance

The HPS teachers are directly involved in running the school in many

ways. While the teachers have decision-making authority in some areas of governance, in most cases they work with the principal (and through him with the central administration) in the decision-making process. They work within certain institutional restraints which are generally acknowledged openly, but try to change those constraints which are felt to impede the teaching-learning process. Most teachers view governance of the school as a dynamic process, one that changes as needs and experiences of individuals change, similar to their view of their classrooms. Teachers take this component of their responsibilities very seriously because they recognize both the direct and indirect effect governance decisions can have on classroom functioning and the atmosphere in the school. They also realize that their participation in school governance is a major reason for the sense of commitment and cooperation that exists at the school. It has provided a major vehicle for conceiving and instituting the innovations which have occurred. As educational researchers argue, involving the primary participants directly in the shaping of innovations in an institution is a major factor in predicting their success (for instance, see Sarason, 1971). The circumstances at HPS tend to support this premise. There appears to be a close relationship between the degree of a teacher's involvement in school governance and the degree to which he or she is innovating in the classroom.

The teachers are involved in such matters as selecting the school's principal, hiring and evaluating staff, allocating the budget and other resources, planning parent involvement, and making educational policy decisions and school rules. They spend between one and three afternoons a week involved in governance work in both formal meetings and informal discussions. Within the school, there is a weekly faculty meeting when routine decisions about school policy are made. When larger issues arise at these meetings, committees are formed which study the issue and make recommendations to the whole faculty. A committee might be formed to plan allocation of the budget and other school resources, organize in-service workshops, write general curriculum guidelines for particular subject areas, or to interview applicants and make recommendations on hiring of new school personnel.

Last year two unusual committees were formed: one group of teachers worked on developing ways to offer teachers more role options within the school so that they can, if they desire, take "mini-sabbaticals" from their classrooms in order to develop new educational roles; for instance, space consultants, parent specialists, curriculum specialists or administrators.[2] Another committee has been formed for the purpose of defining new educational directions and goals for the school which could lead to further innovations and higher quality learning experiences for the children. The formation of these two committees reveals the attitude of many of the teachers that they have accomplished their initial goals and are now ready to refine, clarify and deepen the innovations. Lortie (1975) points out that one reason for teacher apathy and boredom after several years of teaching is the non-hierarchical nature of the profession's structure. Either teachers are in the classroom or become administrators. There are few ways to advance without leaving direct teaching. The teachers at HPS are trying to find new challenges within the classroom through diversifying their roles. Few schools have recognized this problem of teaching over time as much as HPS has. The administration is willing to cooperate in the task, but of course, financial considerations will effect how the committees' recommendations can be implemented.

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[2] Several of the more experienced HPS teachers have expressed a growing need to spend time outside their classroom every few years in order to update and deepen their expertise and generate new challenges for themselves as professionals. Unlike the usual sabbatical every 7 - 10 years, when teachers leave the school for one year's study elsewhere, the teachers at HPS would like to work within the school developing new professional roles which encourage further innovation.

In addition to within school committee work teachers also serve on systemwide committees as representatives of the school. These committees often make policy recommendations for the educational practices of the entire system. The teachers feel it is essential that the Hanscom viewpoint be strongly represented on the committees. The teachers try to act as change agents for teachers at other schools, as well as the central administration and school committee to whom reports ultimately go. On the committees the teachers often advocate the maintainance of the autonomy of each school and individual teachers in determining curriculum and educational practices. They also explain and justify the kinds of teaching practices and curriculum methods they employ at HPS. Occasional conflicts arise between the faculty committees, central administration and HPS especially over issues of school autonomy. The entire HPS teaching staff works with the central administration to find a solution which does not impede the innovative practices as the school.

The principal plays an important role in assisting the teachers with governance responsibilities. He is aware that too much involvement in governance by the teachers can drain them of the time and energy required for them to perform their direct teaching responsibilities. He says that he views a major part of his role to be that of protecting teachers from daily details and governance decisions which he can make himself without impinging on their autonomy. He tries to present teachers with only those decisions and issues which will directly effect their teaching and the life at the school. He feels that a major reason for the success of the school's innovations is the fact that teachers are involved in its governance and feel they are responsible for and have impact on what happens, but are not too heavily burdened with unnecessary details. He also feels that because the existing mechanisms make it necessary for the teachers to take responsibility for both the school's successes and failures, they cannot blame others for what happens.

Another way the principal assists the teachers in the governance of their school is by helping to mediate disagreements which arise among teachers in the course of making governance decisions. While he views the discussion of differing viewpoints a vital part of the governance and teaching process, he feels there must be limits on the extent to which this occurs. He tries to provide leadership especially at times when consensus is not reached. He often intervenes suggesting a compromise, tries to provide rationale about why one solution is more appropriate than another, or finally makes the decision himself when compromise is not possible.[3] Teachers recognize the principal's right and responsibility to take this leadership role.

3. Personnel who assist the teachers in performing their duties

Throughout this report various kinds of support personnel have been described as having important relationships with the classroom teachers. The various supportive roles which currently exist at the school are summarized here.

First, the principal is viewed by all the teachers as having a major impact on the teaching-learning process at HPS. He functions much more closely to the British Model of the Head Teacher(Weber, 1971) than do most elementary school principals in the United States. He performs both educational and administrative duties. The teachers view him as a master teacher, someone with whom they can consult about educational concerns in their classrooms. As an administrator, the teachers find him responsive to their needs and concerns and efficient at carrying out the details of running the school smoothly. In addition, they view the principal as an innovator who constantly provokes thought and analysis of current practices, and consideration of innovative alternatives. He has clearly played a major role in facilitating the teachers' effectiveness in the innovations which

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[3] The principal's decisions in this final case are often biased toward innovation. He sees this as one of the ways he influences change.

have occurred . He has also served as representative of the school with the central administration, especially when advocacy for innovations was needed.

Another important role is that of the curriculum resource person which was created three years ago. The resource person performs several functions. He has created a resource room with materials, manuals, literature and other things which will assist teachers in developing curriculum activities. Teachers go to him when a new project has begun in their rooms for ideas and resources to facilitate the development of the project. They may want help analyzing a curriculum activity or need, ask for some ideas to supplement their own, or they may feel that they would like very specific and extensive guidance. Often, he works directly in classrooms with new materials or curriculum projects to model their use for the teachers. He explains to the teacher what he did and why, and possible ways to expand the activities. He sometimes works with a particular child or group that has special curriculum needs. He lets the teachers define the roles he plays in developing curriculum with them. Some teachers utilize his expertise extensively; others are not very comfortable requesting this kind of help but they know he does have materials and curriculum guides they can borrow. Because of the large number of roles he performs, he sets priorities and limits on those demands he can most effectively meet. The role of curriculum resource person has been an important one in stimulating the use of concrete materials, and curriculum analysis and innovation at the school. It has led to more careful analyses of children's strengths and weaknesses in developing curriculum. It also takes pressure off the teachers' time in developing their classroom curriculum.

Teacher aides perform important roles in the school. Generally, there is one aide to each two or three teachers. The teachers who will be working with the aide are responsible for their hiring. Several of the aides are certified teachers, even with masters degrees, who have been unable to find regular teaching jobs.[4] Often aides are selected because they have special skills which the teachers feel will supplement their own abilities and strengths. For instance, one aide was hired because she had extensive experience in creative movement and dramatics. She did regular movement and dramatics activities with the children. Another aide was hired because she had a background in environmental studies. She ran nature study programs for several groups of children. In addition to performing these special functions, the aides perform a variety of other teaching and managerial duties. For instance, they work with children on reading and math, organize interest groups, help maintain the classroom environment, and supervise recess. There is a great deal of variation in what each aide does depending on his or her strengths, the needs of the teachers and children involved, and the responsibilities teachers want to delegate. In general, teachers and aides work together to determine the aide's role. They have found it necessary to make a flexible but regular schedule for each aide so that teachers know when to plan on having the aide's assistance, and aides know what expectations will be placed on them each day. They are generally treated as professionals, but they are responsible to the teachers and do not have a large number of after-school responsibilities. One does not see the kinds of difficulties which often arise in schools with teacher-aides, perhaps because of the selection process and also because of the degree of training most of the aides have had.

Another group of support personnel consists of curriculum specialists in non-academic curriculum areas including music, physical education and art. Their roles create the potential problem of compartmentalization of areas which most teachers feel are important to integrate into the total class curriculum. For

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[4] In a sense, one can say that the over-supply of teachers in this country has contributed to the (overall) innovativeness. The fact that the additional costs of the innovations at HPS were minimal can be deceptive because the aides often provide low-cost, highly competent personnel for the school.

instance, the children do paintings or models of topics they are studying. For this reason many teachers continue to do these kinds of activities in their classrooms and view the time the children spend with the specialists as "enrichment." A few teachers have begun working closely with specialists so that the specialists can plan their activities based on what has been happening in the class. The degree to which this occurs has been affected by the persons who have worked at the school as specialists. Initially, the specialists were more traditional in their pedagogic beliefs and practices than were the teachers. With careful hiring as replacements were needed, the current specialists are working in a manner more closely tied to the teachers' practices. Another problem often arises from the need to schedule the children's time for specialists. Often, the classroom worktime becomes fragmented and children resent having to stop some activity at a specific time to go to a specialist. On the other hand, some children really enjoy working with the specialists and the kinds of things they do. One teacher said that she would ideally like to have the specialists serve as resource people (similar to the curriculum resource person), to whom she and the children could go when particular needs arose. In a few cases, it has been arranged that at the appointed time only those children who choose to go do so. The teacher remains in the room with fewer children, either working with them or allowing them to continue on independent work. In more traditional schools, this would be an unusual arrangement because teachers see the time the children spend with specialists as their own free-time and do not view their classrooms as offering children adequate music, art and movement experiences.

HPS also has a group of special educators who work with special needs children. They work closely with the classroom teachers of these children. It is the teacher's responsibility to identify children with special needs and seek out the appropriate specialist for assistance. The specialist may decide to work directly with the teacher in helping the teacher develop appropriate educational methods to meet the child's special needs; or the specialist may work regularly with the child as well as with the teacher.[5] There are several kinds of part and full-time specialists in the school including: a speech therapist, a learning disabilities specialist who works primarily with children having perceptual problems, a counsellor who helps children and parents deal with emotional problems as well as helps with the diagnosis of children with special needs, several tutors who work with children on a variety of curriculum areas. When serious special needs are diagnosed, outside consultants are also called in. In a few cases children are sent to special classes at other schools in Lincoln or neighboring communities.

Finally, HPS is used as a setting for student teaching by several teacher training institutions in the Boston area. Student teachers are assigned to one teacher for a period of from seven to fourteen weeks. The placements are made based on mutual agreement between the teacher and student teacher after the student visits the classroom and meets with the teacher. The teachers maintain final decisions-making power as to the people with whom they will work. If for some reason the teacher does not feel comfortable working with the student or vice versa, the student is assigned to another teacher. The teachers work closely with their student teachers as well as the student's college supervisor. This puts an added drain on the teacher's time but the teachers recognize several bene-

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[5] The current trend in special education in the United States, and especially in Massachusetts is to integrate special needs children into regular classrooms, utilizing special educators as tutors and consultants who work with both teachers and children to assist in the integration process. While a Massachusetts law went into effect three years ago mandating this kind of practice, Hanscom had already begun developing this model. It is in keeping with the teachers' and school's general pedagogical orientation of developing children's strengths rather than focusing on children's weaknesses.

fits. First, the student teacher is the only other full-time adult in the room which allows for continuity in his or her contact with pupils and daily classroom functioning. Second, the teachers generally enjoy the analyses and discussions about the classroom functioning and individual children. The teachers say that their regular discussions with student teachers offer them another perspective on their rooms, new ideas, and ongoing stimulation which they do not experience with other support personnel in the school. Third, as the students take more and more responsibility for the room's functioning and individual learning, the teachers find time to work on things in their rooms which they were unable to do when they assumed the major responsibility. They are able to reorganize their priorities. Last, as mentioned in the previous section, several teachers are trying to learn new roles as educators. The teachers feel that working with student teachers affords them the opportunity to develop their abilities as teacher educators, a role in which several teachers would like to become involved in the future.

4. Summary of the features in the HPS environment which affect the teachers' performance of their duties

The innovations at Hanscom Primary School have been facilitated and gradually institutionalized (Shipman, 1974) by the ability of the school environment to adjust to the requirements of the innovations. Several factors have been particularly important in supporing the teachers in their new roles. The general atmosphere of the school is a major contributor to the teachers' commitment to the innovations. The central administration, principal, teachers and support personnel convey a sense of cooperation and supportiveness. These qualities have developed hand-in-hand with the innovations. The school structures have become increasingly flexible and able to change as new needs arise. The teachers see the school environment as generally responsive to their needs and accepting of the differences in teaching styles and pedagogic approaches. The teachers are treated as professionals[6] capable of independent and autonomous actions. They have a sense of control over their classrooms and the life at the school. Because the innovations came as a result of the teachers' initiatives rather than as a result of external pressures, they feel confident in their ability to work out unique solutions to problems with others. They are not working toward a preconceived notion of what their classrooms should be like, rather they try to evolve new methods as needs are recognized. This factor encourages the diversity of methods employed at the school.

More specifically, several structures within the school environment help the teachers maintain and perpetuate their innovative roles. First, there are numerous support personnel who assist the teachers in their roles. Probably most important of these are the principal and the curriculum resource person. Second, there are mechanisms which facilitate communication among teachers including: the teachers' room, weekly faculty meetings, committee work, sharing of classroom aides, in-service workshops, the physical arrangement of the classrooms. Third, school hours are scheduled so that two afternoons per week the children leave school two hours early. This allows teachers to perform a variety of their out-of-classroom duties during regular school hours. All the teachers feel this release time facilitates communication within the school and their ability to perform their out-of-classroom duties. The early release time reveals institutional recognition of the importance placed on their non-teaching duties.

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[6] This point is stressed in the literature on educational innovation in the United States. The fact that teachers often are not viewed or treated as professionals has had a major impact on the degree to which teachers are willing or able to take initiative in performing their duties as opposed to adopting the answers which "experts" provide. (For instance, see Sarason, 1971 or Devaney, 1974)

This, in turn, has led to a greater investment of time and energy on the part of most of the teachers.[7]

Mechanisms for encouraging professional development and growth assist the teachers in further innovating their roles. Informal methods of teacher evaluation encourage experimentation and analysis of classroom practices by the teachers. They are directly involved in their own evaluation with the principal. Evaluation is generally seen as a way of helping teachers change and increase their effectiveness rather than as a threatening procedure whereby teaching practices are labeled "right or wrong." These informal methods are responsive to different teaching styles. New teachers or teachers attempting major innovations are offered special assistance from outside consultants, from guidance from the principal and colleagues, or by having more full-time assistance from an aide. Teachers are encouraged to expand their abilities through in-service training. Vouchers for free courses are provided by the teacher training institutions that place student teachers at the school. Thus, teachers have access to further course work at colleges and universities in the Boston area. Funds are also available for outside consultants in classrooms and for in-service workshops. Finally, the people working at the shcool are a heterogeneous group purposely selected because of their diverse interests and backgrounds. While there are underlying shared assumptions at the school which are a prerequisite for being hired at HPS, the staff feels that diversity is essential for encouraging the exchange of ideas and continued change at the school. They feel there are dangers of becoming too inbred.

Another important factor which has contributed to the teachers' successes is the ample material, financial and personnel resources at HPS. The teachers have had to devote less time providing for basic classroom material necessities than one often finds at innovating schools. When unusual needs arise, the principal is generally able to provide some funds to satisfy them.[8]

A final factor in the HPS environment which contributes to the teachers' continued investment in the innovations is the informal reward system which has developed at the school. The rewards come from a variety of sources including: frequent feedback about their work from the principal who is respected as an educator; respect and feedback from colleagues; the response of those outside the school community who visit the school and recognize its accomplishments; the feedback from children and their parents, and teachers when the children leave Hanscom Air Force Base; and the opportunities they have to work with student teachers and to offer workshops to teachers from other schools who are interested in innovation. In general, the teachers derive a great deal of satisfaction acting as change agents.

A few factors should be indentified as interfering with the teachers' performance of their roles. The teachers face many pressures which more traditional teachers do not have or have to a lesser degree. First, there is a great deal of pressure on the teachers' time, energy and professional skills. Often the teachers get discouraged because of their inability to meet all the demands as adequately as they would like for a variety of reasons including: time constraints, inadequate knowledge or skill in a given area, and attempts at tasks or activities which do not work as they had hoped. In addition, demands for deal-

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[7] Literature on educational innovation also points out that added time demands on the individuals involved are a major outgrowth of most attempts at innovation. Without provisions in school structures which acknowledge these demands, teachers often "burn out" very quickly. Hanscom has tried to create mechanisms which take some of the burdens off of the teachers out-of-school time. This has contributed to the continued innovation at the school. The teachers still spend a great deal of their personal time on teaching-related activities. (For instance, see Shipman, 1974 or Charters, et al., 1973)

[8] There is some disagreement among educational innovators as to the amount of additional financial resources which are required to institute major innovations. They generally agree that while added funding does not ensure success, it does assist the innovation process. (For instance, see Charters, 1971)

ing with daily short-term business and responsibilities often take precedence over more long-term goals. Teachers also are concerned about the standards of performance which they establish for the children. The kinds of evaluation which they have instituted make it much more difficult to assess in "clear-cut" terms how a child is progressing than in traditional settings, and the responsibility the teachers feel in this regard often leads to questioning and uncertainty. The teachers are working in a more ambiguous and open-ended situation which can lead to feelings of inadequacy and doubt, especially during particularly stressful or demanding times which inevitably arise. Some of the teachers tend to rely more heavily on traditional roles when the pressures of day-to-day responsibilities become too great. It is at these thime that the support mechanisms in the school are particularly important in helping the teachers maintain their innovative roles.

When new personnel are hired by the school, or especially by the school system, new pressures on the staff often arise. For instance, when a new superintendent(head of the school system) and a new system-wide reading specialist/coordinator were hired, they each had new goals and methods for the education of the children in the system they hoped to implement. This offered the potential danger of innovations being imposed on the school rather than developing from within. The teachers at HPS were open to discussing and evaluating their recommendations, but generally have succeeded in maintaining the final decisions-making power for their classrooms. The fact that the innovations have become institutionalized within the school to a great extent,makes this kind of negotiating with the administration possible.

As previously described, several teachers find the curriculum area specialists a hindrance to their teaching programs. They do not like the segmentation of the children's learning experiences of the scheduling problems which arise. They would prefer to use the specialists as resource people who would help them develop curriculum activities within the classroom around their curriculum specialties, but not work with the children directly at designated times.

Finally, the general success of the school in implementing innovations, and the publicity which has arisen as a result,have created potentially undesirable results. Many educators, students of education and others interested in open education request to visit the school. The teachers are ambivalent about meeting these requests. They feel that having visitors at the school is desirable because it may facilitate innovation in other schools. They are committed to sharing their expertise in open education with others and in this sense would like to be change agents. On the other hand, visitors need help interpreting what they see, often have many questions and put further demands on the teachers' resources. The teachers have discussed this dilemna and have decided to limit the number of observers, selecting those people who are most likely to utilize their observations to facilitate innovation. They also are trying to minimize the visibility of the school to the public, for instance, they have rejected several offers to have the school used in research projects and newspaper features.

Another possibly undesirable result of the school's success is the occasional response on the part of the school staff that they have reached their objectives and therefore are less willing than they were originally to reflect on ways to improve further their effectiveness as educators. While they certainly have a right to be proud of their accomplishments, a few teachers have begun to be less responsive to alternative models or practices than they were when the innovation process began. On the one hand, the fact that the innovations were begun with no definite educational model toward which they were working(which only later became identified as open education) makes it easier for them to become content with maintaining the status quo, because there is no real external definition of

success. On the other hand, not having a definite model has facilitated experimentation, responsiveness and a sense of success.[9]

B. River Alternative Elementary School

While there are many similarities in the teachers' out-of-class tasks at RAES and HPS, differences between the two schools are more striking in this domain than in actual classroom teaching responsibilities. As in Section II, only those features of the teachers' roles which contrast significantly with HPS will be emphasized here.

The differences in teacher roles at the two schools arise to a large extent from the differences between the schools outlined in Section I; namely, the differences in the origins and initial purposes of the innovations, the institutional histories of the schools, the role of parents, the financial resources, the student population and the political pressures. To some degree, the contrasts in teacher responsibilities are more a matter of differing points of emphasis rather than radically differing roles. For instance, more of the RAES teachers' time is spent on matters involving day-to-day school governance than the HPS teachers which sometimes necessitates less time on teaching preparation. Also, the teachers' roles and responsibilities are less institutionalized or stable at RAES than HPS because of the more radical intentions of the innovations and the newness of the school.

1. Tasks of teachers outside their classrooms directly related to teaching

As at HPS, teachers at RAES view preparation for direct teaching tasks a major responsibility. Currently, they prepare the classroom environment and develop the curriculum in a manner similar to the HPS teachers. Initially, more of their preparation time went into satisfying very basic classroom needs for materials and equipment than the HPS teachers because of the school's more limited resources, as well as dealing with many demanding aspects of school governance. These factors led to less long-term curriculum planning and less planning to meet individual learning needs of the children. This differing emphasis had ramifications on the quality of the teaching-learning process.[10] While resources are now more plentiful at the school than they were initially, the teachers continue to spend more time on school governance than do the HPS teachers which puts limitations on their preparation time.

Most RAES teachers put less emphasis on the formal teaching of skills than do the HPS teachers (especially those working with the younger children), they often spend less time planning for formal skills work and more time developing integrated curriculum and evaluating the teaching-learning process. This is in part due to the involvement of the external evaluator who works with teachers on informal record keeping and assessment techniques and also to the availability of parents to observe classrooms and record information for teachers.

RAES teachers and school staff have begun working more closely together on developing the curriculum for their classrooms than they did originally. Teachers working with children of the same grade levels meet weekly to develop curriculum guidelines, plan joint activities and discuss problems and concerns. In part, closer cooperation among teachers has become possible because the day-to-day concerns about their classrooms and the governance of the school have become less

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[9] Shipman(1974)points out one of the disadvantages of having a predetermined education model for innovation. Teachers in his case study tended to distort the innovative educational model instituted by outside educational innovators at their school, based on their own needs and pedagogic beliefs. At HPS, the teachers were free to develop their own model which helped prevent some of the conflict between the ideal model and the realities of day-to-day teaching which often frustrates attempts to innovate. This conflict is much more apparent at RAES.

[10] The RAES experiences of the first years point out again the need for increased resources and commitment of time and energy by those involved when major innovations are initiated.

demanding than they were when the school started. Initially, most of the teachers' time and energy were consumed by the short-term, immediate problems they and the school faced, and they were less able to provide support for each other.

As at HPS, several mechanisms have been developed at RAES which support the teachers in their preparation tasks. They include: wide-scale help from parents on a regular basis; two half-time curriculum developers(hired in the last year and performing a much broader role than the curriculum response person at HPS); and in-service workshops on a variety of teaching issues.

Because of the stated philosophy and goals of the school, parents play a much more dominant role in all aspects of the school than do the parents of HPS children. In addition to the roles the HPS teachers perform with parents, several special relationships have developed between RAES teachers and parents. This involvement puts special demands on the teachers' energies. Parents serve as volunteers on a regular basis gathering or making materials which the teachers request, working on classroom space and equipment, and arranging field trips. Teachers play a role in recruiting new children for the school. They meet with parents of prospective students, have parents and children visit their classrooms and discuss their educational methods and philosophy. A more unusual role the parents perform is helping in the evaluation process of the teachers. Between two and four times a year, a parent observes each classroom recording particular kinds of information requested by the teacher and forming a general reaction to the quality of the teaching-learning process in the classroom. They write a report but also meet with the teacher whom they observed to discuss questions, concerns and general reactions to the rooms. Parents have been trained at workshops by teachers to perform this role. While teachers generally find their feedback helpful, they are somewhat ambivalent about it. They feel that is is the most successful means they have developed to involve parents actively in the educational process and policy-making of the school, through informing them about the classrooms and giving them the information they need to be actively involved in school governance. The teachers have had to develop greater responsiveness to parents attitudes than one often finds in public schools. They have also given up some of the professional status which often protects teachers from respecting and responding to both positive and critical parents, in favor of a more egalitarian relationship with parents. They are more visible and open to the scrutiny of the parent community than most teachers which potentially makes them more vulnerable and open to criticism.

2. Tasks of teachers related to school governance

The RAES teachers are involved in many of the same aspects of school governance as the HPS teachers. Initially, RAES teachers faced additional demands and more complex roles in this aspect of their responsibilities. In many ways, they were similar to those encountered by any group involved in creating a new institution. While the many structural rigidities which often impede innovation at well-established institutions were not present at the onset of the innovation, neither were the structures that help protect teachers from the onslaught of external demands which drain their energies from teaching responsibilities. Very quickly, the teachers faced many problems and conflicts concerning: defining and operationalizing the school's educational philosophy, dealing with differing expectations and goals of those involved with the school, establishing mechanisms for decision-making, and defining the school's relationship with the school system and community. The pressures of these demands came at a time when their direct teaching responsibilities were particularly great. While no longer as demanding as they once were, school governance continues to take considerably more of the RAES than HPS teachers' time. They are still in the process of creating and experimenting with new structures for school governance rather than refining them

as the HPS teachers are.

There is a more pronounced political component to the teachers' roles and responsibilities at RAES than HPS. The first year there was a sense of shared purpose and cooperation among the adults involved in starting the school. They viewed the school as a democratic community and were committed to changing not only the classroom practices but also traditional, often unresponsive mechanisms of school governance. Teachers participated in almost all school decision-making, both large and small. Faculty meetings and parent-teacher meetings were held weekly. Often the issues lacked clarity or definition which led to frustration and confusion. As differing points of view emerged on various issues, the decision-making process put more and more demands on the teachers' resources. Power struggles surfaced. Many parents became increasingly vocal about their own concerns as they became more knowledgeable about the emerging pedagogic orientation of the school. Time was then taken-up with negotiation and working out relationships between the school and parents. The school system's administration remained somewhat skeptical about the school and its "radical" practices both in and out of the classrooms. The areas in which the school had autonomy to make policy and curriculum decisions were not clearly defined which led to a power struggle between the school and the school system. These conflicts accelerated during the school's first two years. Conflicts also emerged about the role and relation of formal work skills as opposed to informal teaching methods. Teachers disagreed here and some parents were particularly worried their children were not acquiring necessary skills. All this came when their rooms were most demanding.

After the first few months of excitement and cooperation, conflicts such as those outlined above took an increasing toll on the teachers and school personnel. The next year and a half led to many ideological and power struggles within the school, many hours of debates and negotiation sessions, the withdrawal of several children from the school, the resignation of two teachers, and much questioning, self-reflection and learning on the part of all those involved. Teachers often felt peer pressure to conform to externally imposed standards, and in some ways had less freedom to voice their opinions and develop individual teaching styles than did the HPS teachers. Gradually, as the teachers gained experience with open education in their classrooms and working with others in the school, and as the pedagogic and organizational issues became better defined, successful institutional mechanisms were created. One teacher said she felt a major cause of the pressure the teachers felt the first year was their desire to do everything at once and their inability to set priorities and work gradually toward the "ideal" school. This is now less of a problem. The teachers' tasks and responsibilities in relation to school governance are now more precisely defined, differentiated and prioritized.

Several mechanisms have been developed for meeting the external demands placed on the school by the school system and community. The principal has become the major intermediary between the school system and the school. The teachers' involvement with the school system generally consists of feeding information to the principal about their needs and concerns. This occurs for such things as budgeting and allocation of resources, personnel and curriculum requirements. The teachers serve on system-wide committees in a manner similar to the HPS teachers, but they view their role as having a larger political component. Personnel from other schools are often uninformed and threatened by their "radical" positions on educational issues so that the RAES teachers have had to develop the ability to decide when and how to provide input to the committees. The teachers offer in-service workshops for teachers and administrators throughout the system on various aspects of open education. Because participation in these workshops is optional the participants tend to be less threatened by, or critical of, the school and the teachers. The teachers also run open houses at the school twice

a year when other members of the school system and community are invited to visit the school and ask questions about its philosophy and teaching methods.

The RAES teachers have become increasingly aware of their own strengths and limitations as educators performing these change agent roles. They have developed their own styles for working as change agents and make more informed choices about where they will put their energies in meeting the external demands the school faces.

One factor should be mentioned which has contributed significantly to the acceptance and increased interest in RAES by the community; namely, the above average performance of RAES children compared to children in other schools in the sustem, on standardized achievement tests which was reported in the local press. While the children were tested because of pressure from the central administration and against the desire of the teachers, the more peaceful community-school relations corresponded quite closely with this report. Undoubtedly, the teachers' feelings of success as change agents have been influenced by this factor.

The governance responsibilities of teachers within the school also reflect growing stability and efficiency. There are several features which most distinguish this component of the teachers' roles from those of HPS teachers. First, parents are more directly involved at all levels of internal school governance. Teachers must work closely with parents in the decision-making process. Second, the more heterogeneous student population at RAES has led to more work related to responding to concerns about the cultural differences of the children. For instance, providing equal educational opportunities and challenges for all the children is a frequently studied issue. Occasionally, factionalism arises among different sub-cultural groups. Third, those involved with school have developed many close personal relationships within the school so that often school meetings are also social events. One result of this is a close relationship for some of the teachers between their personal and professional lives. Several teachers say this is a particularly rewarding aspect of their job. Here too, some concern exists that the friendship patterns within the school occasionally lead to facionalism of educational and governance issues along friendship lines. A few teachers who have tried to maintain a more clear-cut division between their lives in and out of school say they have experienced some negative pressure and resentment from colleagues. One teacher said she feels maintaining personal friendships at the school further complicates her performance of professional tasks and responsibilties. Finally, because no release time has been scheduled into the school week and because many of the parents have full-time jobs, most meetings occur in the evenings, sometimes as often as two or three times a week. The evening meetings place heavy demands on the teachers' personal lives as well as taking time away from classroom preparation. This factor probably helps explain why personal lives become more interconnected with the school at RAES than at HPS.

In conclusion, the teachers at RAES have been much more actively involved in creating the mechanisms of school governance than were the teachers at HPS. Even before, teacher tasks and responsibilities could be delegated, much more time and energy first went into defining the tasks which needed to be performed. This process placed a heavy burden on the RAES teachers, one which the HPS teachers faced very gradually. As a result of this process, most of the teachers feel a sense of accomplishment about the achievements of the school in creating the kind of democratic community(with some compromises) to which they remain committed.

3. Personnel who assist the teachers in performing their duties

There are several differences in the support personnel and their roles at the two schools. There are fewer support people at RAES. The RAES principal spends a larger portion of his time on business concerning the relationship of the

school to the central school administration than the principal at HPS. Therefore, he is less available to work with teachers. The school's internal workings have become less dependent on him than those at HPS. Two positions were created this year which combine the roles of the HPS curriculum resource person and the special education specialists. The two people who fill these positions are curriculum developers and classroom consultants and also special education resource teachers. They take a more active role in supervising teachers and offering direct assistance than their HPS counterparts. In a sense they perform the role of master educators. Several RAES teachers said the creation of this new role has had more direct impact on their classrooms than any other feature to date. They have helped teachers find renewed challenges in their teaching. The three teacher aides (one assigned to each floor) are unable to provide as much assistance to the teachers at RAES than the aides at HPS. They are fewer in number and spend a large portion of their time doing clerical and managerial duties. In addition, the school has hired people from the community to serve as aides: they often have limited educational training and require in-classroom training if they are utilized as adjunct teaching staff. The longer the aides have been at the school the more they have become involved in the teaching process. However, there has been fairly rapid turnover among the aides which has tended to minimize their usefulness. Parent volunteers perform many of the classroom duties that the aides perform at HPS. The teachers generally are enthusiastic about the help they receive from parents, but have learned to select those parents who are able to fit most easily into the classroom environment. They have found some parents do not work well or comfortably in an informal setting. Student teachers are often placed with teachers at the school in a manner similar to those at HPS. The subject area specialists have created a problem. They are at the school two days a week, sent from other schools in the city. Their teaching methods are extremely traditional and they often are ctitical of the practices at RAES. The school has had little input into their hiring and has tried to negotiate with the central administration to find alternative ways of meeting state requirements for music, art and physical education. As a result, next year the school will be able to hire part-time specialists who can work comfortably within an open education framework. The above personnel place additional demands on the teachers, but they feel there are many benefits.

4. Summary of the features in the RAES environment which affect the teachers' performance of their duties

The innovations at RAES have had a stormier course than those at HPS. The complexities of creating a new school with many innovative goals placed heavy demands on the teachers. The environment continues to change more rapidly at RAES than at HPS. Among the positive features in the environment at the present time are: the sense of community and cooperation in working toward shared ends which have been important throughout; the institutionalization of mechanisms for frequent dialogue and analysis of educational practices, and school governance; the high involvement of parents at all levels (only recently has this feature become a really positive force at the school); the wide variety of support personnel who work closely with teachers; the relationships with the central school administration which facilitate negotiation and cooperation; the opportunities which the teachers now have to work as change agents in and out of the school; and, the channels for communication and sharing among teachers working with children of similar age spans.

The fact that the school had a particular educational model in mind, namely open education, from the onset has been a mixed blessing. Each teacher had an image of the "ideal" classroom and school which they hoped to create immediately.

This contributed to their high investment in their jobs, but also led to frustration, impatience and pedagogic disagreements. A major change throughout the school has been a growing realism and tolerance concerning the limitations of themselves and the school in achieving their ideals.

Several features remain in the school environment which impede the teachers' performance of their duties. However, the degree to which they interfere depends a great deal on the teaching styles and personalities of individual teachers. First, the teachers face all the same environmental pressures described in relation to HPS teachers. In many cases, the pressures are even greater than those at HPS. For instance, governance mechanisms are more cumbersome and parent involvement is more complex and demanding.

The greater heterogeneity of the RAES population contributes to many value and goal differences which arise around the decision-making process. Lower and working class parents tend to see the school as a major vehicle of upwards mobility for their children while middle class parents have many more resources available for their children. Often the middle class parents have intimidated the other parents and prevented them from expressing their views or having as much direct impact on the school. As a result, several lower and working class parents have placed their children back in traditional schools, especially after the early grades. One teacher said she sees a general trend at the school in the upper grades toward a larger proportion of children of middle class, well-educated parents, because of the school's frequent insensitivity to the concerns of minority groups. Several teachers are discouraged about this and are devoting a large portion of their time trying to reverse the trend. This puts added pressure on their time and detracts from classroom endeavors. This situation illustrates how introducing multiple innovations concurrently complicates the teachers' roles and responsibilities.[11] There are many other examples of added pressures placed on the teachers because of the wide-scale innovation at the school.

A few very specific features create added demands. The teachers have no release time despite attempts to negotiate this with the central administration. Therefore, they have had consistent difficulties arranging meeting times when the entire school staff can attend. The school's run-down physical plant requires constant upkeep. Conflicts arise between the school and its neighborhood about vandalism which is blamed on the school. The fire safety inspector makes many demands and places many limitations on the kinds of equipment and materials placed in the classrooms. The teachers feel that he, more than any other outside person, has created unnecessary and often unreasonable demands on their daily functioning by making arbitrary rulings which are not made for other schools. They feel that he is using his position unfairly to influence the educational practices at the school of which he disapproves.[12]

In conclusion, the teachers at RAES faced many pressures the first years of the school. Mechanisms have been created which assist the teachers in coping with the most difficult demands. Many problems in the environment still remain to be resolved. The teachers can be characterized as having a more intense commitment to the innovations, and being faced with more external demands and fewer supports than teachers at HPS. They express more feelings of exhaustion and discuss the possibility of leaving teaching more frequently than HPS teachers.[13] The RAES environment and teachers remain in a more volatile state than HPS. This fact

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[11] Sussmann(197-) and Gross et al(1971) among others discuss in greater depth the problems and complexities of introducing several innovations simultaneously.

[12] The fire inspector's power offers an example of how an unpredictable and apparently unintentional mechanism can influence the course of innovation.

[13] The literature points out the high rate of staff turnover which often occurs during major education in part because the staff gets "burned out". One can see this becoming an issue at RAES.

as well as the wider scope of the innovations at RAES probably contributes to the RAES teachers more frequent and intense expressions of both job satisfaction and job dissatisfaction, than HPS teachers.

C. Comparisons of teachers' out of class tasks in traditional and innovative schools

From the preceding description of the out of classroom tasks and responsibilities of the teachers at HPS and RAES, several key differences can be identified between the roles performed by the innovative and traditional teachers. The differences are both qualitative and quantitative; the innovative teachers can be characterized as devoting more time and energy to non-teaching tasks as well as performing a wider range and variety of roles. Many of the differences stem from the higher professional status given the teachers at the two schools than is generally the case among teachers in traditional schools. This difference arises to some degree as a result of the views those involved at the two schools hold about the importance of the teacher in all aspects of the educational process. At more traditional schools, the teacher is considered important but in a narrower sense; primarily, as a conveyor of standardized curricula. Accompanying the innovative teachers' higher status are both gains and potential liabilities which are less apparent in traditional settings. On the positive side, the teachers' judgements and opinions are generally more highly respected, they have more autonomy and input into the educational process, they receive more support and cooperation from others, and there are more opportunities to experience a sense of competence. The high visibility of the teachers in all aspects of their performance, high-dependence of their successful performance on their professional skill and large number of competencies required all create pressures and risks for the teachers.

More specifically, the innovative teachers assume a more active and autonomous role in preparing for their teaching responsibilities than traditional teachers. They also play a more important role in determining the quality and range of educational experiences in their classrooms which places added importance on preparation tasks. The innovative teachers spend more time developing new and highly individualized materials and activities for individuals or small groups than most traditional teachers. Planning for academic skills which is a major concern of traditional teachers is only one of many areas emphasized by the innovative teachers in their preparation. When compared with traditional teachers, the HPS and RAES teachers' preparation responsibilities are more varied and often more complex.

The teachers at the two schools also participate more actively in their school community and its governance mechanisms than more traditional teachers. In part, this is due to the innovations in organizational structure that have accompanied classroom innovations in both settings(more radically at RAES). Neither school has the highly centralized power structure which is common in traditional schools. This allows teachers a more central role in shaping the educational and school policies which affect their teaching, and a more egalitarian relationship with the principal, but also creates further demands and responsibilities In performing their out of classroom duties the teachers at the two schools often rely more heavily on interpersonal skills with colleagues and parents, their ability to analyze classroom and school practices, and their ability to act as change agents than do most traditional teachers. There are more sociological components to the innovative teachers' roles within the school environment than one finds in traditional school environments.

There are several similarities between the innovative and traditional teachers' roles outside their classrooms. For instance, almost all teachers consider

their primary responsibility to be to the children and the teaching/learning process in their classrooms. For most, preparing for this role takes the largest proportion of their non-teaching time. Other more obvious similarities are: both groups of teachers receive support from curriculum-area specialists and special needs teachers; both work with parents to some degree; they have some method for recording children's progress and assessing their work; they participate in some aspects of school governance.

As with the differences between traditional and innovative teachers described in Section II, many of the differences in teacher roles and responsibilities stem from differences in pedagogic beliefs. The result is that the innovative teachers in both schools face many stresses and strains in performing their duties which are uncommon among traditional teachers, but also gain more opportunities for professional and personal rewards.

4. Additional skills and aptitudes required of the teachers

The skills and aptitudes described as required of teachers in performing their classroom duties gain added importance in the performance of out-of-classroom duties. Autonomy, confidence, flexibility, a deep sense of commitment and a wide range of knowledge about their teaching/learning process all remain crutial. A few additional skills become important.

First, there are skills required of the teachers in relation to working with other adults. They must be able to articulate their pedagogic beliefs and practices clearly to colleagues, administrators and parents. They must work well in cooperation with other adults, be sensitive to the needs of others, be willing and able to consider other points of view, and be able to provide and accept constructive criticism.

Second, they teachers have need of skills related to working within a complex organization. They must have a sense of the areas in which their efforts are most likely to be successful, when a small compromise now may lead to bigger gains in the long run, how to work within the school system to bring about desired conditions.

Third, and closely related to both organizational and interpersonal skills, are skills that are required of the teachers as change agents.

Finally, while the innovative teachers at both schools must be willing to become involved in a situation which places great demands on their personal lives, they must be able to recognize their own limitations and set personal limits on their professional commitments. The ability to set priorities is essential here. Several teachers said these were among the most important skills they developed in their innovative roles. Without them they felt they would have been unable to cope with the demands and complexities of their jobs and would have become "burned out" very quickly.

IV. Conclusions and Recommendations

The teachers' tasks and roles at HPS and RAES have been considered in light of the complexities which are involved in performing their job. As can be seen from the flexibility, individuality and changeability with which the teachers perform their duties, each role must be considered in light of the unique contextual situation in which it occurs. Presenting a list of teacher tasks and roles would have seriously distorted their nature and function. This is perhaps the single most important factor which differentiates educators' view of innovative teachers' roles from those of traditional teachers. Traditional educators generally view teaching as consisting of a set of clearly defined roles and skills which can be identified, taught to teachers in a matter of fact fashion, and then their performance of the skill can be assessed. This also reflects their view of the learning process with children. More innovative educators characterize the teaching and learning process as a complex set of factors which are combined in an almost infinite variety of ways. The result is a view of teaching which often is less definable, and dependent on more general and open-ended skills; teachers' roles as well as children's learning are less predictable than traditional educators believe. Teacher aptitudes become as important a part of the teaching-learning process as the individual skills teachers acquire. Just as teacher roles and responsibilities were complicated by the innovations which occurred at HPS and RAES, so are the tasks and responsibilities of teacher educators who prepare open classroom teachers. Teacher educators have begun to assess their role in preparing innovative teachers. Brearley et al(1972)state the growing concerns aptly:

> "The making of a teacher is a complex matter which does not take place in well defined stages on a 'once and for all' basis. Teaching is, or should be, so closely geared to the rest of life that to meet the needs of a rapidly changing society, two priorities must be cultivated: an understanding of principles and flexibility of mind. At any given time, many methods and materials must be used, which, in the next phase will be outmoded. We leave teachers as helpless dinosaurs if we devise an education for them which purports to 'equip' them in the initial stages for the rest of their teaching life."(p. 7)

The central point of this quotation is that the process of becoming a teacher continues as long as the teacher teaches. Several corollaries follow from this. First, no one set of experiences will prepare teachers for their roles and responsibilities in the classroom. Second, the more teacher education presents training as a complete package, the less will teachers be prepared to cope with the demands of a changing society or educational change. Third, a major role of teacher education should be to prepare teachers to become life-long learners so they will continue to develop as teachers. Fourth, one can no longer think of teacher training only in the context of pre-service training. Provisions must be made once teachers are in their classrooms for continued professional growth and development. Finally, teacher education must begin to concern itself not only with the "teacher part" of the teacher's personality, but also with the teacher as person, learner and member of society.

Lortie(1975) makes several suggestions for change in teacher education which he feels will contribute to the development of teachers more open to and capable of educational change. First, he urges a re-examination of the selection process at teacher training institutions. He believes that a large number of the people attracted to teaching favor maintaining the status quo and that they will interfere with educational innovation later. He suggests selecting only those candidates who seem able to question and analyze existing practices. Second, he feels that

training should foster selectivity, flexibility, resilience, versatility, and tolerance for ambiguity and complexity. Third, he emphasizes the need to free trainees from the unconscious influences of their earlier, traditional educational experiences which often lead to unexamined beliefs and values about teaching, and contribute to later conservatism in their own classrooms. Fourth, he urges more integration of the scientific method and analytical thinking with all aspects of training, as well as decreased compartmentalization of program content. Finally, he stresses the importance of rigorous clinical experiences where theory is related realistically to practice. Too often, he claims, trainees begin teaching with utopian views not firmly based on experience which first leads to a sense of non-accomplishment and then to the seeking out of conservative techniques which are more likely to guarantee "success".

In general, we have seen the teachers at HPS and RAES have acquired a view of teaching which reflects the views of Brearley about their roles as teachers. In addition, they have acquired many of the aptitudes which Lortie urges. While we have not considered the quality and type of training they have had, we can conclude that they generally act and think in ways Lortie and Brearley are recommending teacher training institutions to emphasize with their students.

The specific nature and form of teacher education which is required to develop skills and aptitides which facilitate the innovative teachers' performance of their duties are the subject of growing experimentation. Several different models are emerging. Only one masters degree program for training open classroom teachers will be summarized here.[1] It was selected for two reasons; first, it was designed based on the desire to address many of the concerns outlined in this paper and offers some possible concrete solutions; second, one or more teachers at both HPS and RAES are graduates of this particular program and their success as teachers provides an indication, albeit informal, of its effectiveness. The intended audience was both preservice and experienced teachers. The following are excerpts from descriptions of the program. (Lesley College, 1974 and Cole et al, 1974).

> "The twelve month 'core' open education program has been developed to provide a learning experience for adult students which is in many ways analogous to a good open classroom for children...Since much is yet to be learned about the training process of open classroom teachers, students in this program may sometimes be cast in the role of researchers and developers of their own educational processes, and may help design and evaluate learning experiences which include readings, discussions, workshops, independent projects, field trips and practicums...During the past four years of evolution, the program has developed into a highly integrated experience for the students which is achieved by several factors. An open education center has been established with a meeting room; workshop areas equipped with a variety of 'scrounge' and commercial curriculum materials and curriculum guides; and a small professional library...A core faculty is in change of planning, teaching and coordinating a majority of the learning experiences. The close working relationships which develop between students and faculty allows for the arrangement of flexible courses and individualized experiences which conform more closely with students needs and interests than more traditional training programs often can. Throughout the program students are encouraged to take initiative and responsibility for their learning with the guidance and supervision of the faculty...
>
> "Presently, there are three major elements in a students' work:
> * an analysis of assumptions of open education and related theories of child development, alternative views of school and society, pro-

[1]This program was developed at Lesley College Graduate School of Education, Cambridge Massachusetts. The author of this paper was one of three core faculty members of this program.

blems of initiating and evaluting changes
* courses and workshops in curriculum materials and subject matter areas, considered both separately and in an integrated way
* field experiences and concurrent seminars which tie together theory and practice, and which focus on ways of observing, diagnosing, recording, and responding to the individual needs of children. Throughout the program students work in school settings, the culminating experience being the summer practicum when in teaching teams students design and run their own open classrooms under the close supervision of core faculty. The purpose of this experience is to help students receive the kind of support which teachers rarely receive on their first job and also to allow students to apply and integrate their year long learnings with the help of others."

In many ways, the descriptions of this program echo the processes which were described in the RAES and HPS environment. Sarason(1962) has emphasized the need of teacher education programs to reflect the educational practices they are advocating; or to"practice what they preach." This program reflects the same attitude. It may offer some insight into the method which will facilitate the training of many kinds of innovative teachers, not just open educators.

In-service teacher training has also been identified as an important component of teacher innovation. There has been growing concern and interest in this aspect of teacher education in the United States. It can be divided into two types: that which helps traditional teachers become more innovative, and that which helps innovative teachers experience continued growth. The first type played more of a role at HPS initially, the second type has always been important at RAES and now at HPS. Several features of both have been mentioned. It is important the in-service programs reflect the needs and concerns of the teachers. Even when innovation is desired, it will occur only when teachers see the changes as relevant and when the changes are not too dissonant from the teachers' own pedagogic beliefs and practices. Therefore, they should play an active role in planning their own in-service experiences. In-service programs should probably also emphasize the same kinds of goals described by Lortie and Brearley. In many ways, because teachers involved in in-service programs have their own classrooms to use as laboratories, they are more likely to be able to utilize the new experiences than are pre-service teachers. Finally, in-service training or professional growth should be viewed as occurring both informally among school staff throughout the day as well as in specially designed more formal programs. Many schools ignore the learning which occurs when a cooperative and open school community is created.

In conclusion, we still have much to learn about the nature of the teaching/learning process, the variables that constitute effective teaching and the attributes that contribute to the successful performance of innovative roles. At the present time, we can only construct and test hypotheses about the kinds of experiences which will most assist teachers in their changing roles. This paper represents one attempt to clarify the complexities of this task. Many such efforts rely on lessons which were learned from innovative programs that failed or fell far short of expectations; because Hanscom Primary School and the River Alternative Elementary School have been relatively successful, we end here on a more positive note.

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NETHERLANDS

WORLD ORIENTATION : A CASE STUDY IN THE KINDERGARTEN-ELEMENTARY SCHOOL HOLY HEART IN 'S-HERTOGENBOSCH

by

W. van Velzen, C. Verbeek and J. Arts
CATHOLIC PEDAGOGIC CENTRE

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INTRODUCTION

In the framework of its activities on Teacher policies, the Directorate for Social Affairs, manpower and education of the O.E.C.D. have requested the Catholic Pedagogic Centre (C.P.C.) to carry out a case study on the subject Analysis of profiles of teacher roles and tasks as related to overall learning resources.

The C.P.C. carried out this case study in the Holy Heart School, a school for kindergarten-primary education in 's-Hertogenbosch. The central theme for innovation in the Holy Heart School is World Orientation.

World Orientation is a new method of creating open teaching-learning situations. It is found both in the lower and in the upper classes of the primary school. For this reason it places high demands on the school team. On this account the whole school team plays a role in the case-study.

The advantage of world orientation, as is shown by the case-study, is that it increases the sensibility of the teachers and trains them in new behaviour without necessitating too drastic alterations in the structure of the school system and in such requirements as time-tables, space etc.

The Holy Heart School has already for some years been a pilot school. Together with a few other schools and local school advisory services, the C.P.C. has developed methods and procedures which are now employed to help a very large number of local school advisory services in the guidance of world orientation in the local schools.

The method we have followed for this case study is the observation of lessons and holding discussions with the head of the school and the school team on the basis of the "guide-lines for case-studies".

CHAPTER 1 - GENERAL CHARACTERISTICS

1.1 Characteristics of the Holy Heart School

The Holy Heart School is a school for kindergarten and primary education and is located in 's-Hertogenbosch. 's-Hertogenbosch is situated in the south of the Netherlands between Utrecht and Eindhoven (Philips). It falls under the category of medium-sized municipalities. The school is situated in the city centre but pupils are not drawn from one neighbourhood. The school consists of two departments, namely a kindergarten for 4 and 5 year olds and a primary school for 6 to 12 years olds. The school has a "Director" who himself teaches in the 6th class.

The school is governed by one Board. The number of pupils in the primary section was 155 in May 1976.

With the aid of diagnostics tests, a start is made in the 5th class with assessing the type of school which the pupil should follow after primary school. In the Netherlands the "secondary education" which follows primary education falls into three main categories:

- vocational training
- secondary modern education
- grammar school

Each main category is subdivided into various types.

There are for example five types of vocational education.

Selection for type of secondary education takes place in the sixth class. In this process the opinion of the Director of the school and the results of a test both play a role. The pupils in the sixth class are thus prepared for a school-entrance test.

In the past five years the advice of the head as to the type of secondary education the pupil should follow has been correct in 96% of cases. This percentage is exceptionally high by comparison with the average in 's-Hertogenbosch, namely 23%.

The principles upheld by the school receive the strong support of the parents - about 95% are in agreement.

1.2 Characteristics of the pupils

Age of the pupils is 4 - 12 years of age.

There are two pupils of 13 and 14 years of age respectively.

In the past 3 years 85% of pupils have gone to secondary modern and grammar schools; 15% of pupils went to schools for elementary vocational education. This division of pupils is not characteristic of the national average.

The reason for this is partly to be found in the fact that parents derive mainly from the middle classes: shop-keepers, office clerks, civil servants, restaurant proprietors etc. 15% of parents have had an university education. Moreover the team of teachers is homogeneous.
15% of pupils derive from the lower social classes, 70% from the middle class and 15% from the higher social class. In recent years there has been an increase of pupils from the lower social classes. This is partly due to the impoverishment of the city centre in Den Bosch. Formerly the school drew its pupils mainly from the elite. This is gradually changing. Thanks to its good name it is however more a school for the region than of the neighbourhood.
70% of pupils come from the large city centre, that is to say an area which extends much further than the school recruiting area, while 30% come from the periphery of 's-Hertogenbosch or even from surrounding municipalities. As a result of the ageing of the population in the city centre plus their impoverishment and partly due to the drop in the birth rate, at present a pressing problem in the Netherlands, the number of potential pupils in the city centre decreases. The following forecast has been made. Between 1976 and 1982 the number of pupils will drop from 7000 to 4000. On the basis of this forecast and the school's recruitment area the Holy Heart School should only have 120 pupils. On account of its power of attraction it has 155 pupils.

1.3. Characteristics of the innovation: World orientation

1.3.1. A short outline of the Project World Orientation

Step a) Article "World Orientation" of the Committee on Elementary Education of the Catholic Teachers Association and the Catholic Pedagogic Centre (1969).
Important concepts in this article were:

- realization in the school of the encounter between the Child and the World around it;
- role of the teacher as supervisor of this encounter;
- goal of the school in which knowledge and skills are placed in a pedagogic context.

Around 1970 a number of schools began to give more concrete form to the ideas implicit in the concept World Orientation. There are several ways in which this concept can be interpreted.

Step b) Observation of schools which attempt to give more concrete form to the concept World Orientation (W.O.)

Some conclusions of these observations

- another approach to classroom activities is being sought;
- it is difficult to arrive at concrete methods of tuition on the basis of general principles.
  Many unrelated attempts are observed;
- traditional didactic and working methods infringe on the principles of W.O.
- one strives after open situation but it is difficult to maintain these consistently
- there is no systematic arrangement of experiences
- insight is being gained in the relation between teacher and pupil and the importance of this for creating open teaching-learning situations.

Step c) Reflexion and study: aimed at learning to create open and multiform teaching-learning situations.

Step d) Testing: How does this work at school? How can it be guided?

Step e) Dissemination: Assistance to School Advisory Services with respect to guiding World Orientation.

The findings of the aforegoing phases have found expression in:

- World Orientation - a further view, C.P.C., Den Bosch 1973 (step b);
- World Orientation: principles of realisation, C.P.C., Den Bosch, 1974, (step c);
- Practical manual on World Orientation, C.P.C., Den Bosch, 1976, (step d);
- Manual for guidance of World Orientation, C.P.C., Den Bosch, 1976, (step d).

1.3.2. What is World Orientation

A few basic principles:

A. It may be said of a child in the process of becoming orientated in the world:
   - that it could not exist without some "relationship" with the world;
   - that only through "actual" confrontation of the child with this world does it begin to understand and interpret the world around it;
   - that by interpretation of the world the child also discovers and recognises itself;
   - that the child's confrontation with the world is restricted; the child is always this child and the world always this world;
   - that, if the child wants to achieve self-realisation, it must choose from a wide spectrum of possible affiliations in the world;
   - that as a result of this the child wil also choose for others: by service to another the child becomes more itself;

- the child is constantly discovering, finding directions, looking for orientation points. It is constantly orientating itself to be able to make the choises which have meaning for its being-itself-in-the-world around it.

Insight into these matters would seem to us to be determinant for the behaviour of those who are responsible for helping children and young people to discover their relationship with the world: helping in the search for personal points of orientation as a means of achieving self-realization.

Education should thus aim at creating opportunities for the child to make contact with, discover and give meaning to the world and to itself.

In this sense education should be world orientating. It is characteristic of education to be able to perform this task in a systematic manner. For this purpose it creates various types of situations.

B. From a psychological point of view the following can be said of the child which is in the process of orienting itself in the world:

With respect to the pre-school child:

- Orientation of the child to the world is to a large extent determined by the appeal to its impulse to move and act by its emotional involvement;
- In its dawning discovery of itself it still experiences itself strongly as the centre of perception an appreciation;
- The meaning of the world is seen mainly in the light of usefulness, activity and emotional involvement.

With respect to the young school child:

- The young school child's approach to the world reflects its need to analyse and become acquainted with the reality of people and things.

  It does this mainly by busying itself with things: by manipulating and experimenting, by which means its knowledge can be fitted into its increasingly widening world;
- It is not yet able to experience itself, its own being, but is constantly involved with reality outside itself. Reflexion on this reality or the role which it plays in it is hardly observable;

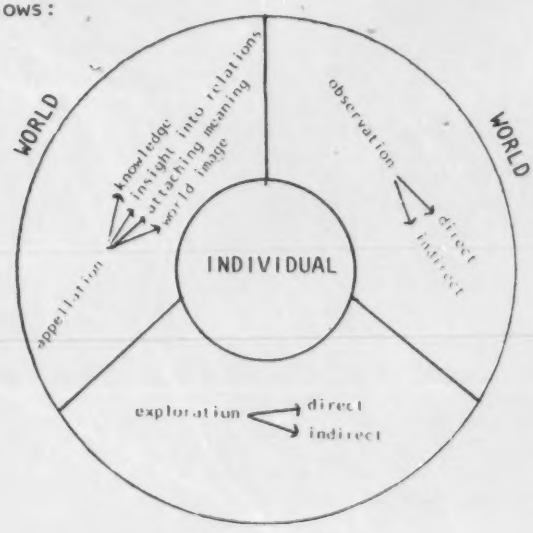
- The world assumes more reality, but on the other hand it is still viewed with a strong degree of emotion on the basis of subjective experience and direct observation.

With respect to the older school child:

- The older school child is extremely active and involved with its world in all sorts of ways with an increasingly objective interest.
  It is anxious to learn and to know, is interested in things. It wants to acquire knowledge, to gain insight in wider contexts and to see things more coherently; its behaviour becomes more goal-oriented and more planned.
- It is increasingly aware of the fact that it is itself a person who evaluates things, who orders circumstances, who has opinions and judgements. But it still experiences itself from the safe haven of the family and his peers, and devotes little time to introspection.
- The meaning which it attaches to things and people is less related to emotional experiences, but is reached more objectively and on the basis of wider and more conciously weighed relationships.

C. The numerous ways in which the individual (the child) orientates in the world can be found schematically in:
- observation,
- exploration,
- attaching meaning to, appellation.

These methods of orientation can be represented schematically as follows:



D. Teaching is aimed at conscious goals. The realisation of W.O. will involve in particular (but not exclusively) the conscious creation of situations in which the child is able to orientate. Seen from a tuitional point of view this is a conclusion with far-reaching consequences.
Teaching methods which are aimed particularly at anticipated behaviour of the pupils will be supplanted by a completely different system in which the central goal of tuition is the creation and presentation of varying teaching-learning situations. This opens the possibility of teaching (and evaluating this) without determining beforehand the desired end behaviour of the pupils.

1.3.3. World orientating tuition as the creation of open teaching-learning situations

A. The object of W.O. is to create situations in the school which provoke the finding of ways of orientation (observation, exploration, appellation). Systematic observation in schools resulted in the conclusion that practical possibilities for teaching-learning situations are: discussions, searching for material in the documentation centre, observation and listening and efforts to take action.
These observations, however, also showed that these teaching-learning situations lead to fixed patterns, as a result of which provocation of a multiform method of orientation is in fact too seldom achieved.
For this reason the systematic analysis and description of characteristics of the various teaching-learning situations have been chosen as the first step to the effective realisation of world orientation. In this context the teaching-learning situations are described "ideal-typically". In practice mixed forms and various combinations will constantly be met with.
From observation the following teaching-learning situations have been recognised:
- "discussion" situations, where the accent lies on talking and listening;
- "observation" situations with the accent on the observation of animals, things, pictures, situations or occurrances;

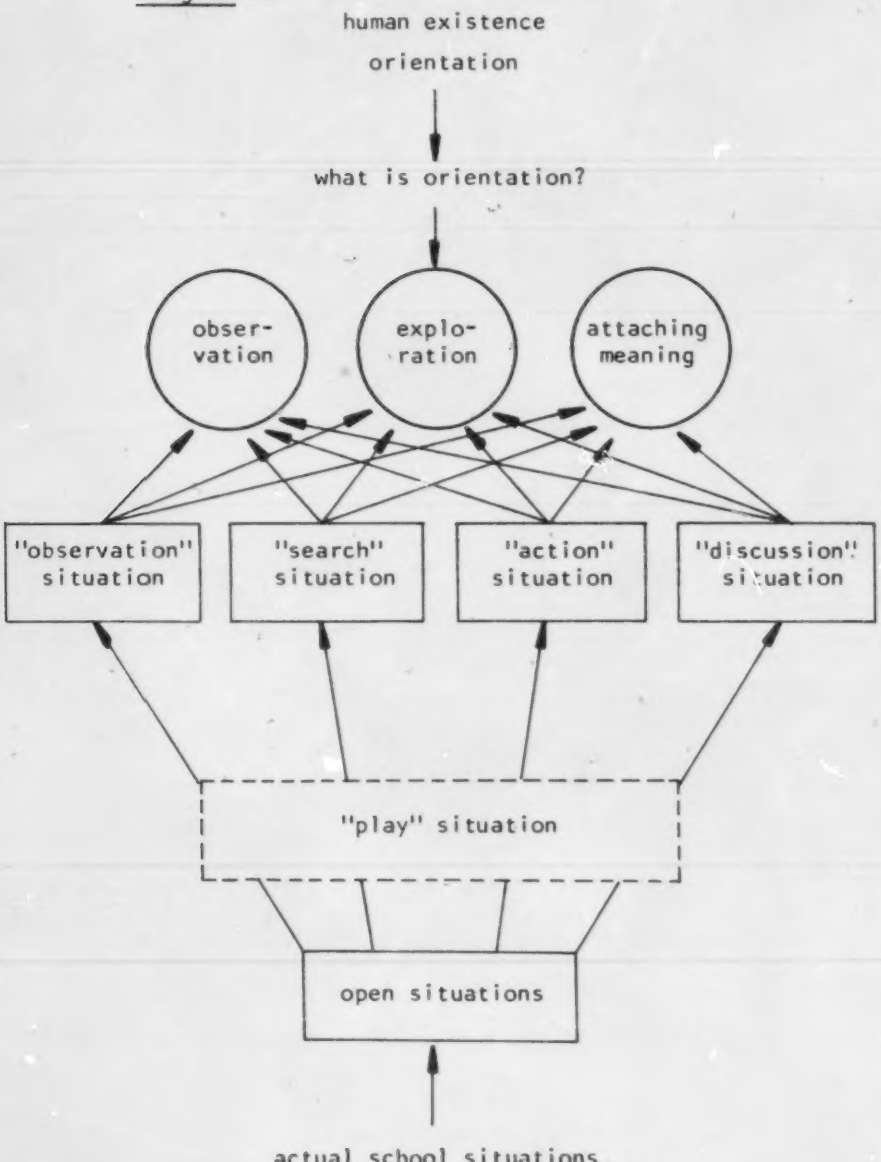
- "search" situations with the accent on collection of material and looking things up in the documentation centre;
- "action" situations, with the accent on one form or another of action or dealing with other people.

With young children we encounter a different sort of situation, namely play. Here the accent cannot be so clearly distinguished: it changes constantly and it is closely connected with the children's experimenting with their own capacities and the experiencing of their own bodies.

In these teaching-learning situations the various ways of orientating discussed get sufficient opportunity to be employed.

In the diagram which follows an attempt is made to incorporate the factors discussed above in a model.

Diagram 1:



1.3.4. Guidance

In the framework of this project teachers are assisted in learning the behaviour described above by the activities of consultants from school Advisory Services. The colsultants participate in teams which prepare the didactic form of teaching-learning situations. Furthermore they engage in systematic observation of teaching-learning situations,which are later evaluated in talks with the individual teachers (and where possible also in team discussions).

For this observation a system has been developed in which consultants are trained. The consultants are also schooled in carrying out discussions with teams and with individuals by C.P.C.

CHAPTER 2 - THE WAY IN WHICH TEACHERS ACCOMPLISH THEIR TASKS

2.1. Analysis of the pedagogic approaches used by the teachers

It will be clear that the teaching-learning situations, which have been distinguished (see section 1.3.3.), will not automatically manifest themselves in the school situation at the correct moment. It will fall to the teachers together with the pupils to bring about these situations by doing certain things and not doing other things since, as we have pointed out, teaching is goal-oriented behaviour. This behaviour can only lead to worthwhile teaching-learning situations if account is taken of various conditions.
These can be translated into the following questions (particularly directed to the teachers):

- What behaviour on the part of the teacher is specific for this teaching-learning situation?
- What are the prerequisites with respect to aptitudes of the teacher, what can be improved in his/her behaviour and how can this be achieved?

It is especially the behaviour of the teacher which shapes and determines the quality of the teaching-learning process. The pupil acts in a situation which has been created by the teacher. It is self-evident that there will be interaction between the behaviour of pupil and teacher. However, the teacher's behaviour gives the cue for that of the pupil.
For the situations to be exactly specified it would be necessary for more empirical data to be available for each teaching-learning situation. On the basis of the ideas which have been formulated provisionally and available data, we can indicate behaviour on the part of the teacher which is found to be typical for specific teaching-learning situations. To be able to establish what is encompassed by this teacher behaviour use has been made of an instrument for observation which will be discussed in the following section (2.1.3.).
It has been found desirable to make a distinction between the lower and upper classes of the primary school. The nature of teacher behaviour is closely related to this.

2.1.1. Lower classes

Two types of orientation situations

Observation of the teaching-learning situation in the lower classes of the primary school (4 - 8 years olds) has shown that (especially amoung the youngest children i.e. of the kindergarten) two types of orientation situations could be distinguished, namely situations which were built up around a certain theme, for example fishing, music, autumn, television; and situations which are not thematically structured and which we call "play situations". In the last-mentioned situations, the children are occupied as they choose with materials of all types: outside with climbing rails, carts, sand, swings, etc.; inside with clothes, blocks, dolls, puzzles, etc.

Play situations

Organisation

The play situation is organised beforehand, especially as regards materials and the arrangement of the space to be used. This is of course not done for each separate situation. The surroundings in which the children work are regularly altered, for example with drawings on the partitions and paintings on the floor. The children themselves help with this.

From the very start the pupils have been taught a few essential rules. These rules relate particularly to safety during use of the materials (for example not to throw around the blocks, not to stand in a cart which is being pulled, etc.).

The behaviour of the teacher in PLAY situations:

The play situation often begins with choosing the material with which the children are going to play. One must be on guard against fixation on the material: it is and remains (chiefly) a medium. The manner, the intensity and the orientative "value" of the game for the children will, however, to a large degree depend on the behaviour of the teacher. This behaviour may be characterised as follows:

Observation

. how and with what do the children play?;
. do they work together when that is necessary or possible? ;
. do they always play with the same material?;
. is there progress in the game?;
. do they behave efficiently (for example do they climb properly, do they load a cart efficiently with material which they want to transport, etc)?
. are there children who are afraid to do something which they would really like to do?
. are there possibilities for play which the children have not yet discovered? (The better the teacher observes the better she learns the possibilities of the material).

Surveillance - seeing to it that the children are not a danger to themselves or others, do not destroy material etc.

Structuring - with the aid of data gained from observation the teachers provide assistance. This can be accomplished by short chats, joining in play with some children or by changing the material with which children are playing and the composition of the groups.

Chats during play show the following characteristics:

- open questions regarding what the child (or group) is doing;
- emphasis on positive evaluation (stimulation);
- advice as to how a certain game can be elevated to a higher plain or as to other possibilities which it offers.

Joining in play with the children can also be a form of structuring. By this means the game may be made to take a slightly different trend or may reach a higher level.

Changes in materials used are a further form of structuring. The child or group is given other or additional material whereby the game it is playing takes on more meaning.

Grouping (or regrouping) of the children can be used to give the children a wider experience of playing.
It is possible that from these "play-situations" the teacher discovers themes which are suited for further orientation of the children.
To get a better impression of the orientating behaviour of the children during these play situations it has been foud to be useful from time to time to watch an individual child at play. Characteristic behavioural patterns can then be taken note of.

Thematised teaching-learning situations

Even more than with older children, themes for young children are intertwined with the immediate "living" surroundings and field of experience of the child. The theme must invite and challenge orientation. This is in the first place a matter of presentation, also to an important degree a question of choice of the theme. This should encompass possibilities for orientation: there should be something to be seen, to look for, to explore. And since children do not all orientate in the same way and approach orientation with the aid of widely differing stores of experience, the theme (and its development) should have various points of approach and offer various possibilities for exploration. This implies that it should be broad enough for justice to be done to the diversity of orientation needs and of ways in which the child experiences things.

Presentation of the theme by the teacher

The point of greatest importance during presentation is that the subject should be offered in such a manner that the children are provoked to orientate, that the children can identify with the theme. Presentation does not only involve giving information as to what the orientation is about, but also stimulation of interest and motivation of the children to make a start with the theme. Presentation aims at awakening emotions on the basis of which the children are motivated to orientating, exploring behaviour. This behaviour is further stimulated and channelled by the teacher.
In order to achieve this goal the theme should be presented in non-specific terms in a wide context of experience and information, so that the children are given the opportunity to react on the basis of their own perception of the theme.

Open teaching-learning situations in orientation with respect to a theme

Four possible accents when structuring this

It has been discussed above how the first presentation of a theme can take place. A fundamental element in this is that the child's awareness of the situation is stimulated, on the basis of which further possibilities for orientation are structured.

From things the children say, questions and products of expression, it may for example become clear that a need is felt for more detailed observation.

They know for example what the baker makes, but not how he does it.

In such a case it may be advisable to offer the possibility for widening experience by means of an "observation situation" (for example by showing a film or by visiting the bakery, by viewing the actual products). To this end the reality itself must be brought into play as far as possible rather than describing reality in words.

In addition to observation (or following this) it may be found that in orientation the accent must be placed on the actual involvement with things: making something; the expression of emotions. After a visit to the Zoo, for example, the children will want to express themselves by making animals (drawings, clay, clippings, mosaic work). In an "action situation" this could be done collectively by letting the whole group make a Zoo (cutting out drawings and collecting them on one large sheet of paper or making a model).

During the process of orientation, situations regularly arise in which there is a need to express impressions in words, to exchange experiences, to tell what they have experienced on other occasions. The accent is then on talking together. In a "discussion situation" the children may tell the group that mother sometimes bakes bread at home and that they ate a different sort of bread during their vacation. They may also attempt to order their experiences with the help of the teacher, to get some idea of the purpose of certain things etc.

In addition to the accent on observation, action and talking, it is also possible that there is material for the children but that this must be channelled, sought, collected and ordered. For example the children's information regarding products from the baker may be scattered.

In a "search situation" this information can be brought together: by looking for pictures out of magazines which have to do with the subject and arranging these and by letting the children put questions to people they know, etc.

Preparations by the teacher for an observation situation (as an example)

In an observation situation, viewed as a teaching-learning situation, we try to channel observation. In the lower classes this is done mainly by questions and simple assignments. In order to prepare these the teacher should herself establish what is to be observed in the object.
Besides looking, can the children feel if it is smooth of rough, hear whether it is hollow or solid? Can they feel if the nails of an animal are sharp? Can they tear up a leaf to see how the veins run? etc.
From observing the object in this light it is possible to arrive at concrete questions which can channel the children's observations.
The same holds good for the preparation of assignments. If for example the teacher wants the children to compare species of plants, she should herself first ascertain what observable differences and similarities there are in order to be able to make structured assignments.
Even when prepared assignments are available on the basis of methods or from assignment cards, it is advisable to ascertain in how far these can be used in the situation on hand.
The structuring of assignments further encompasses:

- manner in which assignment is carried out (the whole class, small groups individual);
- the method of "processing" (drawing, classification, sorting out, singing, playing, etc.);
- the difficulties which may be expected when the children are carrying out the assignment.

Organisation

This is considered important te create a quiet orderly atmosphere of work in which observation and concentration are possible.
Of importance in this connection are:

. having the material ready
. form of grouping.

In the preparation of the assignment it is decided whether the "observation situation" should be carried out with the whole group (together and/or in small working groups) or with a small group of the class while the other children are occupied with other things. In the latter case it must be carefully considered what the other children should do. This is essential both so that the "observation situation" in the small group will be undisturbed (otherwise there will be constant interruptions with questions such as "how should we continue?", "is this right?" from the other groups), and to motivate the children in the other groups to work concentratedly.

. Clear structuring in the transition from one activity to another: when the children are working in groups the teacher tries to create a quiet atmosphere by means of a transition attitude, for example letting the groups get ready quietly and put the materials away group by group.

The interaction process

Generally speaking the process develops as follows:

- After something which is to be observed has been introduced into the group, and this may be a concrete object, a picture, story, game, sound etc., by means of open questions (or assignments), the teacher tries to make observation possible and to guide it as far as possible;
- Mostly this "first observation" is coupled with having the children define what they see by means of closed questions (instruction talk);
- This develops into learning to observe parts or details;
- Questions of a more open nature as to the immediate function (meaning) of objects or parts of objects. Such questions are not yet aimed at real explanations;
- The observation process is kept concentrated on the topic by means of questions (first general, later with respect to details, followed by questions as to the parts observed and lastly questions as to function and meaning of what has been observed;
- The process of observation is alternatively concluded with
  . repetition of what has been named;
  . an expression assignment (drawing, painting etc.) in which the children can to some extent assimilate what has been observed and their impressions;

. a group activity (often motorial) in which the children get the opportunity to relax and the experience is channelled (song, game, making certain motions in group context etc.).

2.1.2. Upper classes

The orientation process of the older pupils in the upper classes is different from that of children in the lower classes, Five differences which may be mentioned are:

- older children are less easily influenced by purely emotional experiences or interpretations;
- with this increasing objectivity an increasingly abstract method of thinking is developing;
- older school children are gaining possession of a wider and more shaded vocabulary;
- the older child can view more objectively the experiences with which he is constantly confronted;
- it is now easier to work in group context, to do things together.

These characteristics give important indications regarding accents, their "climate" and "level".

In the following section we discuss the behaviour and aptitudes required of the teacher in discussion situations, observation situations, action situations and search situations, as well as general aptitudes. Insight into this behaviour and these aptitudes is mainly acquired by means of observation of lessons (see section 2.1.3) at the Holy Heart School and reflexion on these observations. As a concrete example we describe an action situation.

Behaviour of the teacher in DISCUSSION situations

The teacher's behaviour is characterised by the fact that it is more directed at continuance and the "preservation" of the process than at the contribution of opinions and reasons. The teacher's conduct is aimed at sustaining that behaviour and those conditions and skills which are essential for the pupils to enter into discussion.

This is shown by the fact that in observed discussion situations:

- the pupils talk much more than the teacher ;
- the teacher especially poses diverging questions and questions concerning opinions, feelings or evaluations;
- the teacher structures the situation.

In addition to these characteristic elements of behaviour there are a number of requirements which the teacher must be able to meet before this discussion situation can come about:

- the teacher should be capable of varying his/her own behaviour in such a manner that discussion can come about;
- the teacher should be able to summarise what has been said;
- the teacher should be able to decide when a discussion should be terminated;
- the teacher should be capable of evaluating a discussion jointly with the pupils;
- the teacher should be able to present his own opinion in such a manner that the pupils' discussion remains open.

The behaviour of the teacher in OBSERVATION situations

The teacher's behaviour is aimed at letting the pupils learn to discover and observe for themselves.

When behaviour is observed this is to be seen from the fact that:

- the pupils talk much more than the teacher ;
- what the teacher has to say consists mainly of structured assignments, evaluation of the way in which these assignments are carried and structuring of the situation.

Required aptitudes of the teacher in observation situations:

- the teacher should be able to convert questions into observation assignments;
- the teacher should be able to select (organise) objects which further stimulate the pupils' interest or awaken interest;
- the teacher should preserve the desired variation by his own (verbal) behaviour;
- the teacher should be able to evaluate an observation situation;
- the teacher should be in a position to help the pupils in learning the basic skills.

Behaviour of the teacher in ACTION situations

The teacher's behaviour is aimed at stimulating activity and keeping it in the desired channels.

This is shown by the fact that in observed action situations:

- the pupils talk much more than the teacher;
- the teacher's behaviour mainly consists of evaluation of the process and structuring of the situation;
- structuring of diverging assignments axceeds the number of structured converging assignments.

Required aptitudes of the teacher in ACTION situations:

- the teacher should see possibilities for action both inside and outside the school;
- the teacher should be able to suggest alternative activity to a group of pupils;
- the teacher should be able to organise and get the group into action by means of diverging questions and/or assignments;
- the teacher should be capable of consciously preserving the course of action in the group, whether or not chosen by himself, without restricting the group too much;
- the teacher should be capable of assessing beforehand which characteristics of the pupil are essential requirements.

The behaviour of the teacher in SEARCH situations

The teacher regulates the situation in such a manner that the pupils can obtain the information which is relevant for them.

This is to seen from the fact that:

- the pupils talk only slightly more than the teacher;
- the teacher talks mainly to structure questions and assignments, to evaluate the contents and execution of these assignments, to structure the situation and to ask questions which are mainly diverging.

Required aptitudes of the teacher in SEARCH situations:

- the teacher should be able to introduce variety in presenting topics (verbally);
- the teacher should be able to convert questions into structured assignments;

- the teacher should be able to use and supplement sources of information;
- the teacher should be able to evaluate information which has been found;
- the teacher should be able to judge whether he should himself provide information (instruction) or whether he should point out sources of information;
- the teacher should be able to instruct the pupils in basic skills.

Aptitudes which are required of the teacher with respect to teaching-learning in GENERAL:

- On the basis of team discussion the teacher must be prepared to and able to choose a concrete school and year plan in which the situations alternate;
- the teacher must be in a position to replace partly the security offered by orientation on anticipated pupils' behaviour by a new security based on orientative teaching-learning situations;
- the teacher should be capable of flexibly alternating the various teaching-learning situations;
- in the light of the situations the teacher should be able to determine and organise conditions, resources and subjects;
- by means of evaluation and registration the teacher should be able to obtain insight into and keep an eye on the situations (including subjects) which have taken place in the group.

Aptitude requirements of the teachers are so intertwined with the other aspects of the situations that a clear division cannot be maintained. All the required aptitudes mentioned here fall under the tasks and skills of the teachers. (Division into aspects for methodical reasons)

An action situation as example

Teacher's preparations

We will deal mainly with two aspects of the specifics preparations for an action situation, namely:

- structuring of the contents of the situation;
- material organisation.

Structuring of the content

This of course depends to a large extent on the function of the "action" situation in the entire context of orientating teaching-learning sitations around a theme.

- In the case of an introductory situation, the "action" situation will have to be prepared by means of structured assigments. Thes may be closed or not, depending on the goal of the situations.
- The same applies when the "action" situation arises during the cycle of teaching-learning situations.
- If the action situation is seen as the conclusion of a theme, the pupils may be motivated to action by diverging questions.
  The teacher will then usually plan together with the pupils what is to be done and in which way. (For the latter the teacher will have to have alternatives in reserve)

Material organisation

Little can be said about this since this largely depends on the theme. The teacher must create the conditions which lead to action, that is to say, have ready material which may be needed, make arrangements and appointments.

Preparations by the pupils

In general it is difficult to say anything about this since these are strongly influenced by the concrete situation. Preparations may consist of seeing to material, making arrangements and appointments etc.

The process of interaction

Though the function may vary, schematically the process take the following course:

- Phase of instruction or motivation talk, determining of assignments, providing material, planning etc. In this phase the teacher furnishes and structures the assigments or poses diverging questions, and provides information with respect to and evaluates plans for action.
- Execution phase, in which the teacher further structures the assignments and makes evaluations with respects to both content and progress of action.
- Concluding phase in which evaluation or a transition to another teaching-learning situation such as the observation of discussion, may take place.

An "action" situation may be recognised by the following characteristics: (see section 2.1.3.)

The pupils contribute a larger share to activities than the teacher.

activity of pupils	exceeds	activity of teacher

The activity of the pupils consists mainly of the carrying out of assignments

P. 9	exceeds	P. other

When the pupils ask questions they are mostly concerned with the nature of the assignment, that is to say the way in which they must carry it out. Questions as to facts and opinions are less frequent.

P. 6.s	exceeds	P. 6 c.o

The teacher's activity consists mainly of:

- giving assignments
- giving further information about and clarifying the structure of the assignment
- evaluating the process of execution of the assignment and the results of this process
- structuring of the situation.

T.a. + 3 p. + 7 c. + 7 p.	exceeds	T. other

Evaluation

Jointly by teacher and pupils:

In a concluding discussion attention is focused on the results produced by the activity and the way in which these have been reached.

By the teacher:

When development of skills was clearly also an objective of the situation these skills can be tested.

2.1.3. Observation instrument employed

For the registration of behaviour of teachers and pupils use has been made of an observation instrument. Below we give the composition of this instrument, as well as the results in a discussion situation, an observation situation and a search situation in the upper classes.

Observation instrument W.O.

For the purpose of making an observation report in W.O. use is made of a form as shown below. This form is divided into 5 columns. These columns indicate respectively:

Column I : time
column II : description of the subject being dealt with
columns III, IV: a description of the various activities of the teacher and pupil(s) respectively
column V : indication of sources, aids, materials etc.

The activities are indicated by a code which describes 6 main classes of activities, sub-divided into various categories.

I. Providing information regarding contents

This can partly be done by providing facts, arguments or opinions:

1 f factual, regarding contents
1 a argument and conclusion
1 o opinion, attitude, feelings

(If desired it may be indicated whether this information is given on the intitiative of the teacher (1 f, 1 a, 1 o) or on request (2 f, 2 a, 2 o)).

II Repetition to evaluate and summarise

A distinction is mede between a positive evaluation (3) with respect to the process (p) or the content (c) and a negative evaluation (5 p, 5 c). A short review of what has been dealth with in the situation is inserted between as neutral category (4):

3 c positive, content
3 p positive, process
4 (summarising) repetitions
5 c negative, content
5 p negative, process

III. Stimulation to activity

We distinguish between questions (6) and assignments (0) which may be closed or open. Questions as to the structure of the assignment are separately distinguished:

6 c closed question
6 o open question
6 s question as to the structure of the assignment
0 c closed assignment
0 o open assignment

IV. The structuring of the teaching-learning situation

7 c structuring of the contents
7 p structuring of the process
7 o structuring of the organisation

(Here too it may be indicated whether the structuring is given on the teacher's initiative: 7c, 7p, 7o or on request: 8c, 8p, 8o).

V. The execution of the assignments

9 individually
9 o with others

VI. Remaining activities

R. waiting, thinking intervals, talking all at once etc.

Below is given an example of a completed observation scheme

DATE :

SCHOOL: Holy Heart GROUP: 6 (Mr. de Leeuw) NO.: 1

TIME	SUBJECT	TEACHER'S BEHAVIOUR	PUPIL'S BEHAVIOUR	AIDS, SOURCES
9.02	Expectations		Circle	
	with respect to			
	secondary			
	education	7 p		
		1 f		
		1 o		
		6 o	1 f	
			1 f	
			1 f	
		7 c		
			1 f	
			5 c, 1 a	
9.05	most difficult	6 o		
	changes		1 o	
			1 f	
			1 o	
			1 f	
		7 p		
		6 o		
			1 o	
		1 f, 6 o		
			1 o	
			1 o	
	independence		1 a	black board
			1 o	
			1 f	
			1 m, 1 a	
			1 m	
9.10		6 o		
			1 f	
			1 f	
			1 o	
			5 c	
		7 o		
			1 f, 1 a	
			1 a	
			1 o	
			1 a	
		6 o, 7 c		
			1 a	
			5 c, 1 a	
		1 o		
			1 o	
		1 f, 7 c		
9.15			1 a	

On the basis of this observation scheme we have been able to establish the behaviour of the teachers and pupils in the upper classes in the various situations.

Observation situation

activity of pupils	exceeds	activity of teachers

In an observation situation the pupils mainly provide the factual information.

P. 1 f	exceeds	T. 1 f

The pupils are mainly occupied with the execution of assignments.

P. 9	exceeds	P. other

The behaviour of the teacher is characterised by:
- the giving of assignments,
- giving further information concerning and clarifying the strcuture of the assignment,
- evaluation of the process of carrying out an assignment, and the result of this,
- structuring of the situation

T. a + 3 p + 7 c.p	exceeds	T. other

Action situation (see sect. 2.1.2.)

Search situation

In general the process may proceed in the following phases:

- Phase of discussion or instruction in which the "search" assignments are given and the manner of execution discussed. The duration of the phase depends on possible difficulties with respect to, for example, technique of the interview, manner of consulting documentary material, registration, etc.;
- Phase of execution of the assignment. The teacher helps the pupils by further structuring the assignment, instruction with respect to registration, etc.;
- Phase of reporting, presentation, assembling of results. This phase will probably develop into a "discussion" or "action" situation, which will show other characteristics than the "search" situation.

Observed behaviour which characterises a "search" situation is

The pupils ar mainly engaged with the carrying out of assignments

p. 9	exceeds	p. other

Pupils' questions mostly relate to the structure of the assignment (how they should carry it out), sometimes to actual data, but not to opinions or arguments.

P. 6 s	exceeds	p. 6 c + 6 o

The information which the pupils contribute relates mainly to factual data

P. 1 f	exceeds	P. 1 a + 1 o

The teacher's behaviour is mostly concerned with:

- giving the assignment;
- information as to and clarifying the structure of the assignment;
- evaluation of the process of carrying out of the assignment and its results;

- structuring of the situation

T.o. + 3 p. + 7 c + 3 p + 7 o	exceeds	T.other

In a discussion situation the pupils have most to say. Their contribution exceeds that of the teachers.

activity of the pupils	exceeds	activity of the teacher

The pupil's contribution mostly takes the form of communication. That is to say they communicate their opinions, feelings, arguments, view points concerning a theme to each other. These communications mostly do not contain factual information.

p.la. + 1 o.	exceeds	p.1 f

To set a discussion situation in motion and to encourage it to develop as a process the teacher poses particularly open questions which stimulate discussion, expression of opinions and points of view. Closed questions, for example as to factual data, information etc. do not provoke discussion (even though they are sometimes necessary at a certain stage).

T. 6 o	exceeds	T. 6 c

To permit the discussion to progress satisfactorily and to give the children sufficient scope it is particularly the teacher's role to channel this process. By means of questions which serve to structure certain matters further or bring more depth into the approach he may

stimulate the children to further orientation. If however he himself contributes to much evaluation, information, opinions etc., he blocks the process of discussion by the children.

T. 6 o + 7 c. + 7 p.	exceeds	T. other

Also observable is that:

- the teacher tries to convert as many diverging questions by the pupils as possible to converging questions which do not stimulate only factual information.
  Exampie: How much does that bicycle cost; do you consider the bicycle expensive? must you save very long to buy it?
- Questions or information which diverge too far from the theme are guided back to the theme by the teacher.

2.2. Analysis of the changes in the teacher's role

In general the teachers of the Holy Heart chool were in agreement that during the development of and working with world orientation they have undergone a number of behavioural changes.
The following aspects were mentioned:

- changes in didactic approach. Formerly matter to be learned occupied a more central position, while now efforts are more pupil oriented. A constant effort is being made to draw more out of the children but the teachers often find it difficult in various situations not to fall back into the conventional style of teaching. In world orientation an appeal is made to other attributes of the pupils. They must also be allowed more time for an observation situation, for instance, actually to take shape.
- World orientation makes the teachers feel more capable of manipulating the material to be learned: they feel less constrained. Moreover there is a greater selectivity with respect to material to be learned.
- World orientation puts higher demands on the team. On account of the longitudinal planning of material to be learned, the teachers must more often meet to discuss the planning and execution of themes. Moreover higher demands are placed on the creativity of the teachers in connection with selection and execution of themes.

- It has also been found that the methods employed in world orientation are applicable to other subjects. For example in religious education the teacher now also employs "search situations".
- In conclusion it has been found that world orientation also gives the teachers more security. They are now better able to manage the various situations in the class and to keep them in the desired channels.

Role of the teacher

Though the teacher roles which are generally encountered: instructor, supervisor, adviser/consultant, leader/guide, participant/chairman, organiser, are all mentioned, the team of the Holy Heart School stresses the function of: guide, adviser, and stimulator. It will moreover be evident that there will be differences in the teacher's role in the lower and upper classes and depending on the orientation situation involved. This was already discussed in sections 2.1.1. and 2.1.2.

Teacher's behaviour

Taking into account the information included in earlier sections, we have asked the school team to sum up once more what teacher behaviour they apply most often to world orientation. This resulted in the following list:

- posing questions;
- furthering co-operation between the pupils;
- making suggestions;
- offering help (possibly in the form of suggesting alternatives) in the organisation by the pupils of certain activities;
- stimulating the pupils;
- maintaining a healthy atmosphere in the class;
- seeing to it that assignments are carried out;
- summarising an event, a story etc.;
- evaluating with the class where things went well or wrong;
- responding to the initiative of the pupils.

Grouping of pupils

In general the teachers were in agreement that grouping of pupils may vary per situation. In a discussion situation the whole group usually is involved (group discussion). In this situation one starts with the class as a whole. Within the class, depending on the situation, re-grouping takes place. Small groups consisting of 2 or 4 pupils are also often formed. In general the teacher himself determines the size of the group and it is also often his task to determine its composition. In addition to ordinary grouping criteria, such as tempo and attempting to choose members of the group who will complement each other, two other criteria are named when picking a group. In world orientation a theme can be dealt with in various ways. In a group discussion encompassing the whole class, the teacher can obtain some insight into the interests of the pupils. Pupils with the same interests are then often grouped together. The behaviour of the pupil is also observed. Pupils with behavioural problems are preferably not placed in the same group.

Behaviour and activities of pupils

The following pupil behaviour and activities were listed by the teachers:

- asking questions
- making remarks
- expressing emotions
- listening to each other
- discussing
- taking notes
- doing nothing
- summarising
- carrying out assignments
- investigating
- making diagrams
- selecting
- preparing material
- drawing
- searching in documentary material
- photographing, interviewing people in the street
- visiting building, institutions, people who practice certain occupations, etc.

Resources

Resources listed by the teachers are:

- books
- school documentary centre
- objects relating to the theme which are collected within the school as far as possible
- clippings from newspapers
- parents (especially mothers) who are invited
- school television
- objects made by the pupils on the basis of assignments. (Exhibitions of these objects are organised)
- stencil copies
- expression material, including musical instruments.

Evaluation of pupils' work

Evaluation takes place in two ways. Since planning of themes is a matter for the school team, a process evaluation is carried out in the team. In this evaluation the team assesses how the lesson went, what the children think of the theme, what sort of preparation there was for the theme, whether the theme in question should be repeated.
Various methods of evaluation are employed in the class. This question was already obliquely gone into in sections 2.1.1. and 2.1.2. To complete the picture the following evaluation methods should be mentioned:

- reading the results of the assignments
- registering which pupils participate in discussions
- registering whether the groups in the class work well
- discussing with the children what they think of the activities
- having personal talks with the children
- where necessary giving a test
- having a group discussion in which the children are allowed to criticise each other, the results of the assignments etc.
- having the children express in words what they think they have learned
- having the children prepare an oral/written: report/essay etc.

It will be clear that the manner and intensity of evaluation differs between the lower and upper classes.

Preparation of work for pupils

This matter will be gone into at length in chapter 3 when dealing with curricula planning.

CHAPTER 3 - TEACHERS' OTHER TASKS AND THEIR RELATION TO COMPONENTS OF THE TEACHING/LEARNING PROCESS

In this chapter two aspects are dealt with, namely:

3.1. Curricula planning

3.2. The aptitudes which seem to be most required by teachers for their new roles.

3.1. Curricula planning

Choice and development of themes

The choice of open teaching-learning situations cannot be seen as separate from the subject, theme or object being dealt with.

A theme may be regarded as one aspect of the world which has been made the object of orientation.

The themes chosen can be tested against two criteria:

a) Criteria regarding content:
- Does the theme fit the specific identity of the school?
- Does it offer the children various orientation possibilities?
- Does it offer the children the opportunity to work with actual things?
- The theme is worthwhile if it encompasses many relations with earlier experiences;
- Does the theme give the children the opportunity for evaluation and/or actual involvement?
- Does the theme fit the choice of the children themselves?

b) Criteria as to execution:
- The theme must offer orientation possibilities with the aid of the normal possibilities in the school and its surroundings;
- The teachers must be able to develop the theme, be conversant with it and have some affinity with it;
- It must be possible to round off the theme within a certain period.

How can the teachers develop a theme?

- Brainstorming: - distinguishing as many aspects of the theme as possible: arranging of aspects;
- Choice of aspects: - the aspects which are found to be suited to orientation are chosen, to be used for futher orientation;

- Each aspect chosen is developed into one or more teaching-learning situations:
  - What is there in this aspect for the children to observe, what can they do with it, how can they experience it, how can they give meaning to it?
  - What are the possible goals attached to this aspect?
  - Formulation of the situation which has been developed?
  - Formulation of orientation goals (What does this aspect encompass?)
  - Indication of concrete goals per situation;
  - Deciding ways of evaluation and registration;
- Evaluation of the theme.

On page 36/37 is given the formal scheme which is followed in the Holy Heart School in the planning of themes. In discussions teachers laid stress on the following aspects.
In the Holy Heart School brainstorming is always done by means of a team discussion. In these discussions arrangements are made regarding tasks and contacts which may have to be sought with other institutions. Methods are also discussed. Problems are encountered in finding suitable starting points, providing for sufficient diversity in activities and drawing up plans. Some teachers write out the entire organisation of the project beforehand so that they have a better view of steps to be taken. Having discussions with colleagues and preparing sufficient background information forthemselves gives the teachers the impression that classes are better prepared, though the general opinion is that as a result of this the work-load is considerably increased.
In the planning of themes every effort is made to bring current affairs into the picture. The school is in the process of designing a longitudinal curriculum for world orientation suited to 4 - 12 year olds. In this curriculum attention is devoted to history, ecology, biology and geography as well as to the attitudes which have been described in the previous chapter. It is realised that for the time being it will also be necessary for traditional lessons to be given in which the children will acquire required aptitudes. What the exact balance of the curriculum will be eventually is not yet known.
Up to now the Holy Heart School has had the advantage that planning and development of themes was carried out with the aid of the Catholic Pedagogic Centre. Since in future help in this area will decrease, and in view of the amount of time which must be invested in the development of themes, the Holy Heart School feels the need for a sort of "League of

co-operating schools" which exchange themes which have been developed. For evaluation and registration of World Orientation the Holy Heart School uses two registration forms which are filled in by the teachers.

Evaluation should not be regarded as "looking backwards", but as an apprising reflexion of how it related to ensuing processes so that these can progress more efficiently. Evaluation is aimed at the goals which were set for a theme: what course did it take?

a. Evaluation by the teacher by means of
   - Observation (by consultant, head of school), followed by discussion: What did the teacher aim at? Was it achieved?
   - Team discussion:
     - Collective review of how matters are going (went);
     - Mutual support;
     - Help in the planning of the next theme.

b. Evaluation by the children by means of
   - Discussion (their opinions, experiences);
   - Incidental evaluation (for keeping process in hand);
   - Questionnaires (registers to be filled in; progress charts).

c. Assessment: in how far have the goals of the teaching-learning situation been achieved?

   Many of the goals are not easy to describe concretely and are thus difficult to measure; this does not however exclude the possibility of assessment though it is certainly more difficult.
   - Assessment of orientation goals by:
     - studying opinions put forward by the group,
     - studying the childrens' "products",
     - studying observation data (and questionnaires, for example with respect to the planning of the situation);
   - Assessment of situation-oriented goals by:
     - observation by consultant, head of school, etc.,
     - observation by the teacher
   - Assessment of concrete goals by:
     tests etc.

d. Registration

With a view to further planning and reporting to the parents, some registration (administration) is quite important.

- Per theme brief notes can be made of data. The completed forms then function as a sort of log;
- In spite of the fact that it takes a lot of time and energy it is necessary that some data should be registered for each pupil. Progress can be indicated by +, - and o signs.

Two examples of the method of registration described above follow.

REGISTRATION PER THEME THEME: REGISTRATION FORM NUMBER OF HOURS:	Teacher:
A. CHILDREN'S OPINIONS Interest in topic Situations positively assessed Situations negatively assessed	
B. SITUATION ORIENTED GOALS Short assessment of observation situations Short assessment of discussion situations Short assessment of search situations Short assessment of action situations	
C. ORIENTATION GOALS Orientation goals to which: contribution has been good Orientation goals to which no positive contribution has been made	
D. CONCRETE GOALS Knowledge goals reasonably achieved: Skills reasonably achieved:	
E. COMMENTS Regarding co-operation within the team: Regarding themes:	

REGISTRATION PER PUPIL

THEME: DURATION OF THEME: .....hours

DATE : TEACHER:

Names	Interest	Individual initiative contribution	Orientation goals	Concrete goals	Co-operation	Carrying out of assignments	Participation in discussion situations	Participation in observation situations	Participation in search situations	Participation in action (play) situations	Other comments

3.2. The aptitudes which seem to be most required by teachers for their new roles.

In preceding sections we have devoted considerable attention to behaviour which is expected of the teacher. This implies that certain aptitudes are required of the teachers. Below we give a list of the aptitudes which in the opinion of the school-team are most desirable for World Orientation.

With relation to the pupils
- having patience;
- being creative;
- being able to accept the pupils as he is;
- keeping an open attitude with respect to the various backgrounds from which the pupils derive; being able to encourage the children to speak about the norms which are accepted at home;
- giving the children scope; being able to assume an attitude of patience in which the children are given a change to contribute their knowledge;
- being able to fashion the sphere and a healthy climate in the class.

With relation to colleagues
- being forgiving;
- being co-operative;
- being open;
- being able to accept criticism.

With relation to parents
- being ready to give information and to co-operate;
- being able to seek contact with them;
- being able when they ar involved in lessons to delegate and accept their suggestions.

With relation to themselves the teachers named the following aptitudes:
- being creative;
- being interested and involved;
- being able to be critical of oneself;
- being anxious to be kept informed of new developments;
- being open to guidance by consultants.

UNITED KINGDOM

THE INTEGRATED DAY APPROACH TO ENGLISH PRIMARY EDUCATION

by

Dr. P. Gammage (University of Bristol)
and
Mrs. C. Woodhead, B.Sc. (Bristol)

Achnowledgements

The establishments concerned are four 'Integrated Day' Primary Schools in Bristol : one 'Infant' age range 5-7 years, two 'Junior' age range 7-11 years, one 'Infant/Junior' age range 5-11 years.

We are indebted to the teachers and children of the four schools for their tolerant and frank cooperation. In particular the four headteachers, despite having very full and busy lives, gave unstintingly of their time in furthering the investigation, answering searching questions concerning their educational beliefs and allowing us access to their classrooms.

We have included some of their notes and have occasionally quoted from their comments verbatim. Any errors of judgement or of interpretation, however, cannot be deemed those of the headteachers and must remain the responsibility of the authors.

Philip Gammage
Cath Woodhead

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Preface

Anyone proposing to study English primary schools in general, or even specific aspects with well-known pedagogical labels in particular, must be aware that the English system at this age range exhibits considerable variation despite similar descriptive categories being employed. The 'Integrated Day' method is a good example of an omnibus term covering a particularly wide variety of thematic or project approaches to the curriculum. It being apparent that no single school case study of the integrated day could be sufficient an exemplar for generalisation, four widely different schools were chosen. All four claimed to be pursuing the integrated day. All clearly exhibit certain problems in common, e.g. what to do about ensuring sufficient coverage of 'core' curricula (basic skills in the three R's); and, because the Infant approaches may differ from those of Junior schools, particularly as the latter face the approach of secondary education, it was thought wise to study one Infant school and two Junior schools, and one combined Infant/Junior school within the age range 5 to 11 years. This does not imply that in England all Infant and Junior departments are separated. In Avon they commonly are, being administered and supervised as separate and autonomous institutions. In England as a whole, this is now somewhat less commonly the case. It should also be borne in mind that many Local Education Authorities in England have consolidated Infant and Junior departments into one first school (age 5-8 or 5-9 years) and that in some cases, too, Middle schools (age 9-13) exist which operate on a modified integrated day approach at their lower age level.

I. Introduction

Four schools in the North and East of Avon were studied during the period May to July, 1976. Observation included discussions with the headteachers and staff members individually, the monitoring of 'lesson' periods in the class room (using a simple observation schedule over periods of about 30 minutes - see Appendix B), attempts at rating the replies of teachers to certain key questions p. 11 and the seeking of information on curricular organisation, policy on evaluation and recording, staff development, etc. In addition, the use of two observers, often independently, assessing the same organisation or lessons, lends some minimal objectivity to the whole process. The Schools, simply designated, A, B, C and D, are described as follows:-

School A.

(1) Characteristics of the school

Primary, Infant; situated in suburban N.East Bristol amongst small private and council (local authority provided) estates. The school was built in 1947 to a single storey - linear (corridor) design. One Terrapin structure in grounds. It is set upon a large bitumen play area containing some smaller grass play spaces and is bounded by wall and grass slopes. It is sited next to a similarly built Junior School. The school has 270 pupils, eight full-time teachers plus (voluntary) parent and student helpers. The social origin of the pupils is mainly that of artisan and semi-skilled workers.
There are eight classes each containing approximately 30-35 Pupils. The pupils are not prepared for any formal examinations.
The building itself is light and airy - all available space in corridors is also used for teaching groups/individuals. The classrooms have a carpeted 'quiet' corner and are divided by book shelves. Small tables are grouped in sets of four, allowing between four and eight children to work together.
The corridors are extremely well used to include areas for quiet study, music, cookery, art, etc. The walls are almost entirely covered with frequently changed examples of child and teacher art and craft, together with stimuli especially chosen by the head or individual teachers. The head co-ordinates and organises overall display throughout the school, expressing herself as particularly concerned with the aesthetic awareness of her staff and children and taking a pride in her own involvement in this matter.
Large numbers of books are in evidence throughout the school and consumable stock, paper, etc., appears to be in plentiful supply.

(2) Characteristics of Pupils

Pupils aged 5 to 7½ years are admitted to the school from a catchment containing very little recognised nursery provision.

They thus commence formal schooling upon reaching the age of five. No pupils below statutory age can be admitted but there is a staggered entry three times per year. On leaving the Infants' school, the children go on to the Junior school on the adjacent site. The latter is a non-streamed Junior school organised along semi-formal lines but with considerable thematic content to the curriculum. Intake to school A is based entirely upon geographical catchment distribution; that is the administering Local Education Authority agrees national boundaries for each school and from within which the school draws its pupils. Such boundaries are normally strictly upheld by the head teacher and Local Authority officers. The majority of the children come from social classes 3 and 4 (O.P.C.S. 1970).

The school is divided into four parallel classes of lower infants (aged 5 and 6 years) and four of upper infants (aged 7-7½ years). But those divisions are not rigid.

(3) Characteristics of Innovation

The integrated day approach to the curriculum is followed by all teachers at the instigation and inspiration of the head. The head teacher advises parents officially (via a letter to parents of incoming children) that in this school there is no formal timetable, a great number of activities taking place in the classroom at the same time, a considerable element of child choice in curricular matters. A thematic approach in the classroom is emphasised and (usually) half-termly (approx. 5-6 weeks) topics are expected to inter-relate all 'normal' subject areas. Prime objectives are stated to be those of maximising child choice (and hence, it is stated) motivation, the encouragement of children to gather information for themselves, flexibility of curricula so that they may be more effectively matched to the individual requirements of the child, permitting children freedom to develop particular individual skills and talents. Immediate organisational goals (as officially stated in advice to the staff) are that a wise range of stimulatory material must always be on display to children, that all possible materials and tools should be available to even the youngest, that all work should gradually lead to articulated assignments, that children should be encouraged to move outside of the classroom and work on their own, that detailed records should be kept of each child's activities.

School B.

(1) Characteristics of the school

Primary, Junior, situated in small market town almost within the suburbs of Bristol. The catchment is predominantly that of modern, small estates of owner-occupied housing. The school was built in 1972/73, is of two stories with a small inner courtyard. There are no corridors; classrooms and quiet areas interconnect. There are 280 pupils on roll, eight full-time teachers, a part-time welfare assistant and 50 parents offering regular voluntary help. No preparation for formal examination is undertaken; all children attend the local comprehensive secondary school on attaining the age of eleven. The school itself is set in a large grass and bitumen area at the side of a housing estate and adjoining some farm land and near building sites. All available space seems well used, including stairways. Art and craft work by children is displayed throughout the school. Stock appears plentiful and there is evidence of considerable library resources and of a small audio-reading unit linked to primers.

(2) Characteristics of Pupils

Pupils aged 7 to 11 years are admitted. They come from the separate but adjoining Infant school which shares the same site. The Infant School is in close contact with the Junior school and, though less thematic in curricular approach, is organised along similar lines. Thus, the children enter the Junior school with some experience of thematic or project work. There is no selection on entry. All children from the designated catchment attend. (Less than 2% attend private schools). The social origins of the pupils would be largely those of classes 2 and 3 (O.P.C.S. 1970); the fathers appear to be mainly employed in technical, skilled artisan and lower managerial occupations.

(3) Characteristics of Innovation

An integrated day approach to the curriculum is adopted. Generally this takes the form of that adopted by school A., half-termly topics dealt with as expanding themes which in theory allow the children to develop chosen aspects at their own rate and level of development. But school B places considerable emphasis on parental involvement, and, possibly because of

a catchment area which contains many mothers who are not in full-time employment, it is able to actively involve a large number of parents as assistants to the teachers. The school has an 'open-door' policy to parents and the latter are much in evidence. Additionally, because there are no problems of literacy in the school, the emphasis on literacy is not so evident in school B as in school A. But systematic mathematics guidelines (and teachers' and children's texts) are provided for the teachers by the headmistress. Specific objectives are officially formulated for mathematics, creative writing, spelling and use of the environment (environmental studies, social studies, elements of science). But the overall school objectives are implicit rather than explicit within documents provided for teachers and parents, in 'official' descriptions of the school and in cyclo-styled teacher resource material containing ideas on projects and on the display of children's work. These objectives would appear to be those of providing a stimulating environment, allowing considerable freedom of choice within the curriculum, for teacher and child, encouraging children to learn from one another, the fostering of enquiry and discovery approaches, making the school an integral part of the local community, the encouragement of self-pacing and self-evaluation by the child.

School C.

(1) Characteristics of the school

Primary, combined Infant and Junior situated on the outskirts of a village on the Severn Estuary. The village is in some aspects an overspill suburb for the nearby city of Bristol. The school, built in 1967, is of two stories, partly of prefabricated construction with large windows, no major corridors, and with classrooms separated by small cloakrooms and landing areas. It is set in a large grass field on the edge of the village. The catchment comprises small owner-occupied houses, council houses and some caravans. There are 223 pupils on roll and eight full-time teachers. The children are not prepared for formal examinations; all pass on to the local comprehensive at eleven years of age. There is no local nursery school provision. The children attend school at 5 years of age.

In all, School C has seven classes, arranged chronologically, one class per year, but with two parallel classes at 6 to 7 years. The school classrooms are mixed in their layout and organisation; some appeared very conventional (rows of desks) and some have the desks more obviously grouped into units.

There are no carpeted areas, but there are some quiet work areas in the corridors. The school had a display of teacher/child art in the hall during the periods of observation. A small library of teacher resources is also being painstakingly built up by the head. This teacher-resource library is clearly being rapidly developed, increased and cross-referenced. For the headteacher this resource library clearly represented an important mode of developing and increasing the flexibility of the teacher and hence, she hoped, of the integrated curriculum.

(2) Characteristics of the children

Pupils aged 5 to 11 years are admitted. The average class size is 32. The children enter school termly (i.e. three-term staggered entry). The children attend the local comprehensive school which has been known to complain about standards of some children on transfer from primary to secondary education. The social background of the pupils is largely of class 4 (O.P.C.S. 1970) with some children from skilled artisan and lower-middle class families.

(3) Characteristics of innovation

Most difficult of the four schools to categorise these characteristics. Nominally, there is an agreed thematic approach to curricula based on half-termly central projects. In practice this was less obviously the case. The head teacher (new to the school) had issued a statement of her personal philosophy and the school appeared to be in a state of some transition from previous rather haphazard individualistic approaches by teachers to one where all were agreed that the integrated day approach should be followed. The main obvious innovation was the establishment of a clear teacher resource unit, which aims to provide "a bank of flexible, non-book resources in the affective areas of the curriculum" (Headteacher, School C, 1976). This unit is also intended for use by children, in respect of language-based activities, but is clearly primarily intended for use of teachers in preparation of thematic development of curricula. Considerable imagination, preparation and collation had gone into the unit. The bulk of the ideas and work deriving from the head teacher. The unit was only just coming into use.

Aims of the school were set out in very general terms by the head teacher in her statement of personal philosophy. She aimed to develop the school as a community centre, wished to individualise learning and stated general objectives as:-

the encouragement of individual talents and interests among parents and children; the deliberate acquisition of the basic skills of literacy and numeracy, and the exploration of knowledge areas in the children's own terms so as to encourage observation, classification, recording and imagination. Specific objectives within themes or subject areas were not yet worked out with the teachers. There was clearly an ongoing debate concerning objectives and methodology.

School D.

(1) Characteristics of the School

Primary, Junior, situated on the outskirts of a small market town close to a new owner-occupied housing estate. The town is itself close to the city and has become, in effect, a suburb of that city. The school was built in the early 1960's. It is a spacious two-storey building of linear design - set in pleasant tree planted and grass space at the side of a quiet estate road. It has more space than would appear normally to be the case, since it has recently been split from the adjacent Infants department and has one or two spare teaching areas. It has 205 pupils on roll with 6 full-time teachers, a head teacher, and two half-time teachers (one of whom acts as a remedial teacher). The classrooms are large and airy with lino floors. There are carpeted quiet areas in the stair wells and evidence of good stocks of books, and of attractive pupil and teacher art and craft displays. The classrooms have fitted sinks and 'wet-clay and workshop' areas. Each room has a carpeted quiet corner. The furniture is grouped in hexagonal units. All children enter at seven years of age after completing an appropriate period in the adjacent Infant department. There are no formal examinations. After attaining the age of eleven, the children attend the local comprehensive school. There are six classes, each vertically grouped across a limited age range; thus, two parallel classes for 7 years to 9 years, two for 8 to 10 years, and two for 10 and 11 years.

(2) Characteristics of Pupils

Virtually all the children attending the school on entry at 7 years are literate. They clearly come from moderately affluent homes, are well-dressed and are relatively sophisticated in terms of travel-experience, books and possessions. Very few come from large families (of more than three children). There are however a significant minority (10%+) who come from homes where the marital circumstances appear strained or unorthodox. The social origin of the pupils is largely one of classes 2 and 3 (O.P.C.S. 1970) - professional, middle and lower middle class.

(3) Characteristics of Innovation

Integrated day plus limited vertical grouping is practised throughout the school. Maths and language studies are structured separately, though all other parts of the curriculum are thematically integrated. Themes are recorded in the head teacher's log book and normally cover a half or a whole term. No official statements are published concerning aims and objectives and the head teacher, whilst discussing individual theme objectives offers specific guidelines for Maths and English only. The Mathematics scheme is closely related to modern teaching texts (Fletcher), the language studies stress accuracy in spelling and grammatical construction as well as creative writing. In interview, the head teacher stated that he offered little criticism of his teachers since his main belief was that teachers should be free to learn their own style of pedagogical approach. There is virtually no overall timetable except for the planning usage of common resources (P.E. equipment, musical instruments, etc.).

II. The Ways in which Teachers Accomplish their Tasks

In general, within the schools considered, it would appear that the aims and objectives expressed by head teachers and staff tended to represent an amalgm of ideological belief and pragmatic consideration. Thus, whereas teachers might often express concern to match levels of work with the apparent levels of interest and cognitive functioning demonstrated by pupils, there was tacit acceptance that the effects of available materials, plant and organisation of personnel, would critically mediate in the process. There was also an awareness in each of the schools that an entirely thematic approach did not necessarily lend itself to systematic and carefully articulated development of certain areas of knowledge (notably mathematics).

Most teachers questioned were conscious that any logical inter-relationships within a chosen theme would have to be considered very carefully by the teacher as to the best mode of presentation or exploration for a given group of children, but were rarely clear on the problems of varying the presentation and development to such an extent that it would match each child's idiosyncratic needs or lines of approach. Equally clearly, once the theme had been introduced there were varying methods of control used by the teachers to see that the ideas developed were not too far from those initially thought out as potential sequences of development by the teacher. Thus, themes could prove surprisingly limiting or very expansive - in part a variable dependent upon the teacher's own knowledge, imagination and pedagogical experience. Even in School A., where there was considerable overview of staff themes by the head, this did in fact appear to be the case. Whilst themes were stated in all schools to occasionally arise from child excitement or initiation, it was clear that, in practice the institutionalisation of the thematic approach led to the largely teacher originated theme being planned out in the vacation period prior to the term. Child interaction then clearly altered themes or developed them in ways which suited child interest - but to a much more limited extent than might be anticipated. As might be expected child-initiated alteration took place in classes where teachers appeared imaginative, open and sensitive to children's needs. Equally important, such change took place where the teachers felt confident of their own freedom, and where they appeared secure in the knowledge that the head teacher would not intervene. Such confidence was not necessarily a concomitant of a particular school organisation; rather it appeared to have something to do with individual enthusiasm, teacher-perception concerning the goals of the school, and a definite commitment to what might be termed a personal and liberal philosophy. This is not to imply that the pedagogical approaches generally observed could be termed 'formal', nor that the focus was generally upon the teacher. In all classes observed, the major portion of the learning enterprise usually involved children working in groups and communication intra-group was the norm rather than the exception.

In order to channel discussion with the teachers and to make comparison between schools as well as between stated attitudes and actual classroom behaviour, two different profiles or check-lists were constructed. Profile A. consisted of a five-point rated response questionnaire asking eleven questions concerning curricular organisation and what might be loosely termed, teaching style. Profile B. consisted of a much simplified classroom observation style designed to focus on nine salient features of teacher-pupil interaction. These were primarily concerned with movement, grouping, teacher intervention, lesson content and evaluation. Head teachers were also invited to respond to Profile A. and to talk of their educational objectives in particular.

In devising the profiles, attention was first focussed on current literature on English primary education, in particular in terms of the integrated day and the organisation of child-centred learning. (See select bibliography). Then, after an initial period of observation and questioning in the schools and with the use of the O.E.C.D. guide lines for case studies (1976), certain key areas for investigation were delineated and cast into the form of simple questions. Terms employed were strictly conventional (i.e. 'three R's' was used in preference to the term 'core curricula'; and 'child-centred' or 'teacher-centred' decided upon as appropriately familiar terminology for all practising teachers). Teachers were not limited to a one-word response. They were invited to elaborate, qualify and discuss at all stages of questioning. The eleven questions for Profile A. were kept as short and to-the-point as possible. They could be responded to simply and quickly if the teacher so wished, in about ten minutes. Most teachers did, however, prefer to expand and elaborate.

Questions were set out as follows. Mean responses by those teachers who agreed to take part (n=26) are then shown at histogram (fig.1).

PROFILE A

1. How important do you rate the need for a clear organisation of the school day imposed from outside the classroom (lesson bells, set break times, etc.)?

1	2	3	4	5
Essential	*important*	*neutral*	*unimport.*	*def. unnecessary*

2. What is the importance of teaching children independence in clearing up and working on their own, etc.?

1	2	3	4	5
Essential	*important*	*neutral*	*unimport.*	*def. unnecessary*

3. What is your view of the necessity for keeping detailed daily reports of children's academic development and behaviour?

1	2	3	4	5
Essential	*important*	*neutral*	*unimport.*	*def. unnecessary*

4. How important is it for children to do the three "R's every day?

1	2	3	4	5
Essential	*important*	*neutral*	*unimport.*	*def. unnecessary*

5. How far do you cover the subjects of the traditional primary school?

1	2	3	4	5
Try completely	*try*	*neutral*	*don't try*	*no need*

6. To what extent do ideas come from the children themselves?

1	2	3	4	5
Entirely	*often*	*mixed*	*rarely*	*never*

7. How much time is needed by the teacher to prepare materials, themes, etc.?

1	2	3	4	5
V. great deal (weekends, etc.)	*quite considerable*	*some*	*relatively little*	*none whatever*

8. How much are work and ideas discussed amongst the staff?

1	2	3	4	5
maximum v. great deal	*quite considerable*	*some*	*relatively little*	*none whatever*

9. How do you view the need for courses and general education for teachers to keep up with new ideas, etc.?

1	2	3	4	5
Essential	*important*	*neutral*	*unimport.*	*def. unnecessary*

10. Do the layout and facilities of the school restrict you?

1	2	3	4	5
V. great deal	*quite considerably*	*to some extent*	*relatively little*	*not at all*

11. How would you describe the way you teach?

1) very child centred; 2) child centred;
3) moderately child centred; 4) teacher centred;
5) very teacher centred.

HISTOGRAMS TO SHOW MEAN RESPONSES TO PROFILE A

FIG. 1 ALL TEACHERS ($n = 26$)

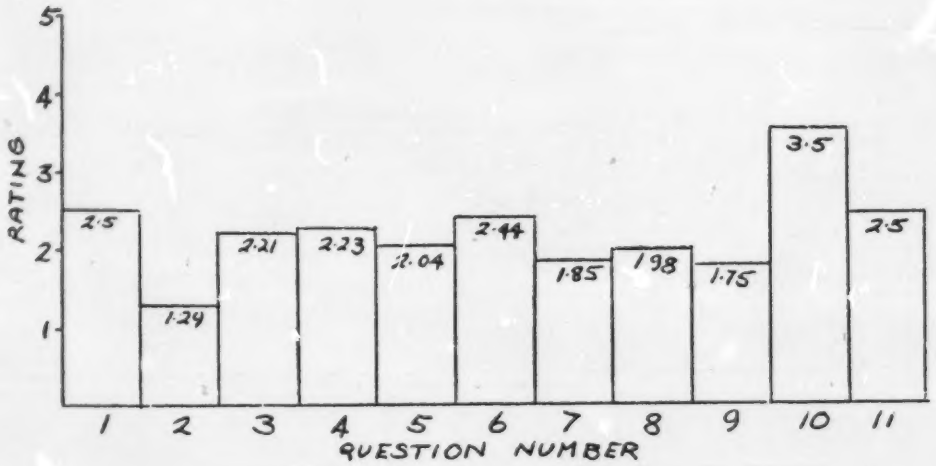


FIG. 2 SCHOOL A ($n = 6$)

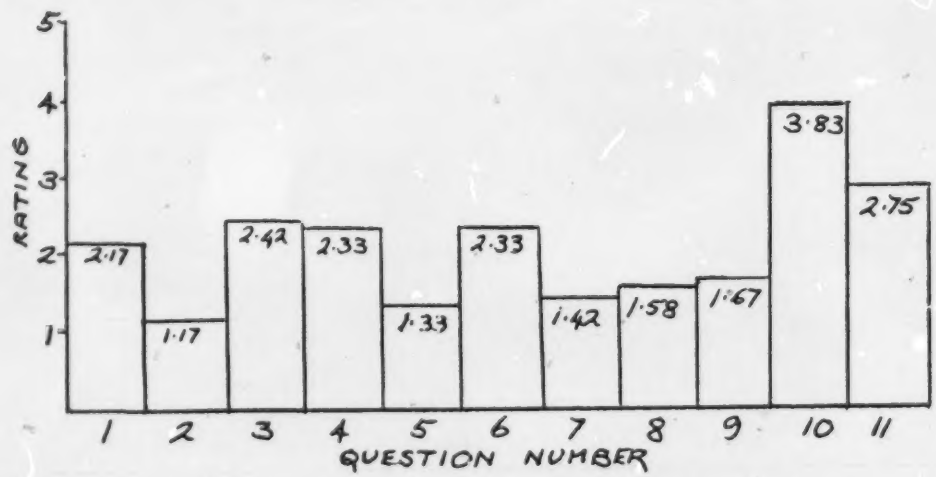


FIG. 3 SCHOOL B (n=9)

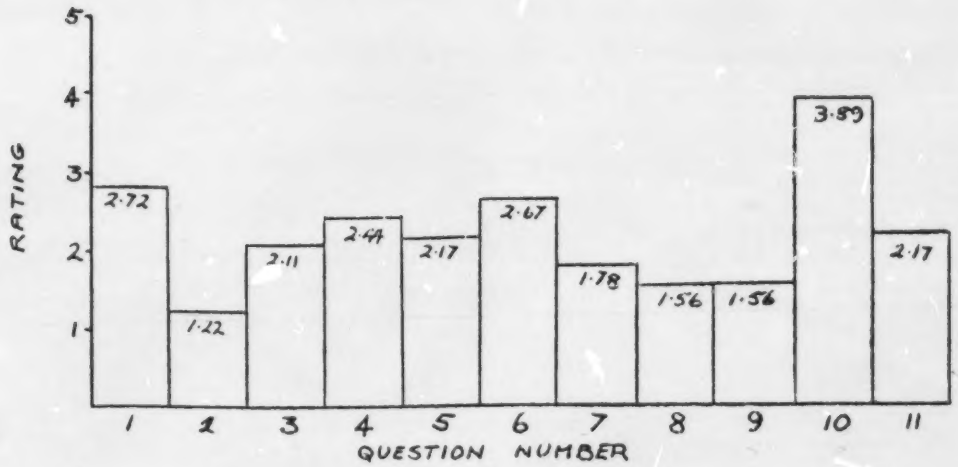


FIG. 4 SCHOOL C (n=8)

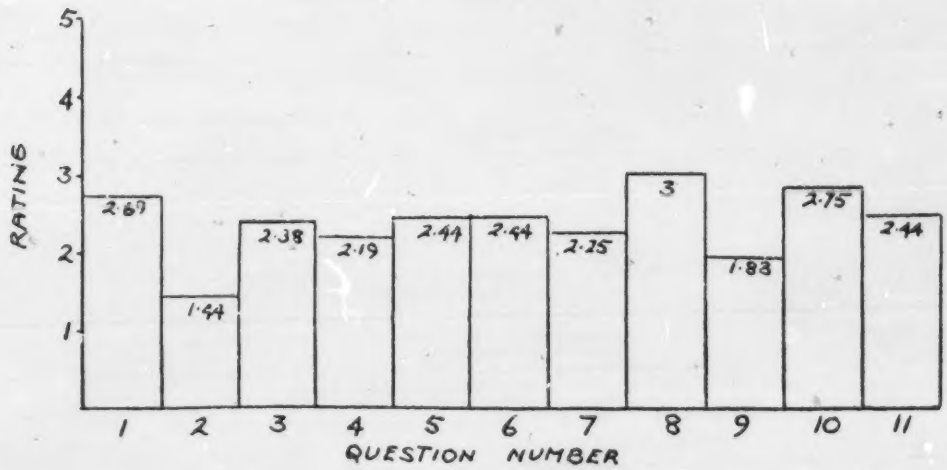
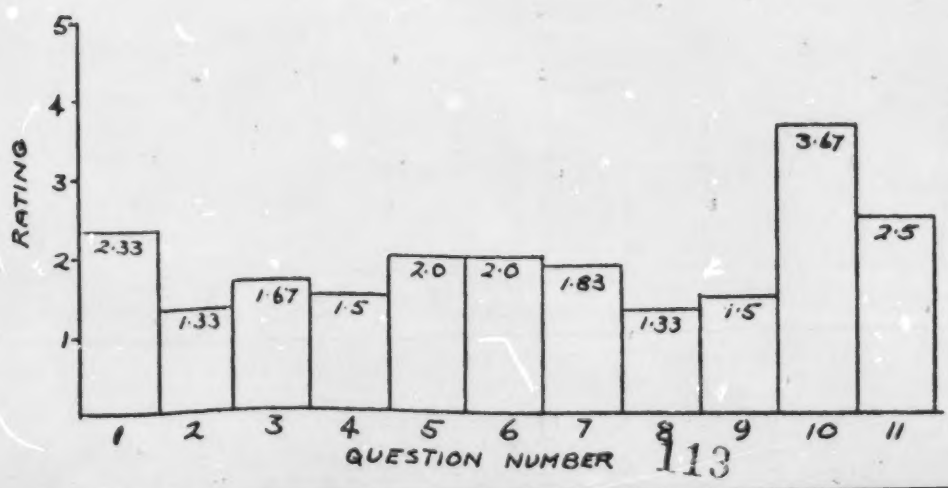


FIG. 5 SCHOOL D (n=3)



Given the nature of the sample, (non-random, small and voluntary); given the crudity of the profile with no check on its reliability or the possibility of response bias, too much attention cannot be paid to the scores derived from a conventional but imprecise weighting system. However, where response differences between schools approach 1 or more, (i.e. in excess of a complete rating shift) it might be wise to consider these responses in more detail. Generally the overall mean responses show that the teachers responded at the more positive end of the scale. They saw themselves (or preferred to be seen; the two are not synonymous) as earnest, hard-working, moderately progressive and largely committed to child-centred approaches. Though the majority of teachers considered themselves moderately 'child-centred', our observation profile showed them as somewhat less so. It is perhaps interesting to note that in school B, where the teachers were observed as more child-centred in approach, we noticed that almost all art and craft display was child originated rather than teacher originated.

1. The organisation of the classrooms and the type of communication expected in it.

In all classrooms observed (with the exception of one) pupils were working individually or in groups of about four, and the norm was one of groups being engaged in different activities at the same time. This is not to imply that access to knowledge was always informal. Indeed, in many of the classrooms presentation of knowledge was very clear and obvious, taking place either via direct discussion between teacher and group, or by assignment cards provided for the group (or individual) in a relatively clearly structured manner. In a minority of cases one observed that children felt themselves under some pressure to follow certain work patterns each day prior to their having any choice concerning the rest of the day's enterprises. This was particularly noticeable in School A., least noticeable in School B. In the latter case, one child confessed privately that he always avoided certain activities (associated with language) for as long as possible. Certainly he was able to avoid any creative writing for two or three days at a time by concentrating his attention on Maths and science areas (i.e. both those related to the 'theme' and those related to any structured provision of core curricula).

Describing 'typical' patterns of teacher-child interaction is perhaps rather unwise in view of the small number of schools seen and because patterns seemed in part related to the age of the children. But organisation at the different age levels seemed to be more usually as follows:-

With young children, infants, the whole class was usually drawn together at three or four points throughout the day for a description of tasks and ensuing organisation. In addition, infants were commonly drawn together for story time (usually once per day) and sometimes for discussion of anything interesting brought from home. Themes were normally almost entirely teacher-chosen and teacher-directed; children were set specific assignments, particularly during the first part of the day, but assignments were carefully matched to level of group or individual ability and there were frequent 'play' tasks involved, with considerable use of materials. Teacher intervention and direction seemed total,

especially in relation to number and language work. Children tended to regard core curriculum as 'work' and the majority of children questioned clearly saw it as divorced from the theme. In short, the integrated theme was less of an integrated curriculum than some of the teachers suggested. The flexibility and adaptation of the theme to meet individual child requirements was, as stated earlier, very much a function of teacher imagination and skill. At worst, thematic approaches degenerated into very limited projects suggested by the teacher. These projects followed early morning 'work' assignments; and usually the latter were associated with language or number work. However, even in infant classrooms where there was such a clear separation between 'theme' and 'work' occurring, the ways which the children sought knowledge and were taught to seek knowledge were definitely informal. The objectives were clearly those of the acquiring of learning techniques and the development of communication skills. In all, work was both pupil-oriented and teacher-oriented in conception and organisation of communication, but access to educational knowledge was (typically) informal and knowledge organisation itself varied between closed and open in content, though with a strong bias towards openness being generally the case.

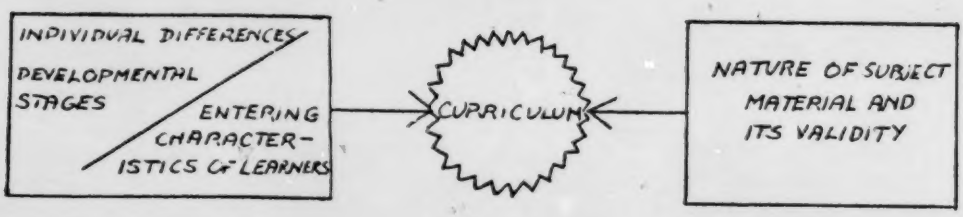
With the older children of approximately eight years or more, there was generally much less obvious division between thematic work and core curricula. Partly this resulted from the fact that most of the older children were already in possession of basic skills in terms of literacy and numeracy. Consequently they were able to continue to develop these skills within the chosen themes. Partly it was consequent upon the older children having greater ability to carry out independent research into chosen topics and to develop them much more widely. Yet within all this there is a paradox, for, at the Junior level - the teachers were often much more didactic and 'rigid' in the provision of access to knowledge - and, often, perhaps because of apparent child-choice, children would work along surprisingly narrowly defined and specialist subject areas of knowledge. Typically, older children would be drawn together as a class only once or twice per day and whole series of days would encompass work on differing aspects of the theme at a highly sustained and individualistic level. This was particularly noticeable in School B.

2. Definitions and delineations of teacher role are notoriously difficult.

At the primary age level the role tends to be multiple, complex and highly diffuse. Our observations would certainly serve to confirm that all teachers were, at the age levels concerned, engaged in a whole gamut of roles ranging from 'mother-nurse' to specialist instructor. If one assumes that aspects of welfare and general socialization are implicit in the role for the teacher of all young children, then the greatest cause of change within the prime role (that of instructor) was change in the nature of the topic/subject or aspect of it as it was adjusted to the individual needs (intellectual characteristics and motives) of the child. Both in Schools B. and D., where processes in mathematics were being related to the theme (one transport, the other connected with time), the processes were initially drawn from children (School B. in groups at a time; School D. the whole class) by formal teacher-determined question and answer techniques. Only after the principles had apparently been

grasped were the children allowed to develop their own ideas and communicate with each other. In the case observed in School D., the process was followed up by a variety of teacher-directed assignments and (initially) discovery-learning processes were minimal. On the other hand the ideas on mountains and sunrise (part of a theme with 2nd year juniors in School B) were taken only as starting points in a music and movement lesson and, with relatively little input of ideas by the teacher, children developed individual and group dance patterns in a variety of ways entirely at will. It would be unfair to suggest that anxiety concerning carefully articulated concept development in mathematics limited modes of discovery and presentation, but certainly in maths especially we observed little that was not of teacher (or teaching text) origin. Furthermore, where individual exploration was left to children (aged 9-10 years) in one school, in a lesson concerning fractions, a great deal of time appeared to be wasted by children in making errors and failing to note the salient principles involved in the process. One might conclude from this that the teachers varied their roles considerably in relation to the nature of the subject material and in relation to validity in terms of the knowledge work generally. (see especially Bernstein in Young, M.F.D., 1971 p. 49). Whilst discovery processes might be deemed occasionally appropriate for certain logical interrelationships in mathematics or science areas, careful planning of the sequences and of the reticulation and articulation of desired stages of learning was normally very much in evidence throughout the age range. To some extent this same general concern, planning and action intervention was noticeable in language studies as well; the most highly planned teacher-directed assignments, taking place in the field of infant reading. Thus, to reiterate, the role of the teacher in organising and preparing curricular material seemed to be most affected by sensitivity to two prime constraints.

Fig.6



Diagnosis of 1. depended upon methods of recording and evaluation used - as well as the knowledge, skill and understanding that the teacher employed in dealing with each child. Here a particularly onerous constraint to the teaching role became evident in all schools visited. The integrated day usually meant that at any one time in the school day, many children would be engaged in entirely different activities. The constant monitoring, recording and evaluation of these activities obviously formed a substantial part of the teaching role, particularly in the lower age groups where children's self-checking methods were less reliable or less appropriate. Whereas, in School B., children from seven to eleven years were carefully trained in the use of self-evaluation and recording processes, none of the other schools appeared to have been able to devise any system other than constant teacher surveillance and recording. However, reading materials in all schools did have elements of programming and self-checking built into them. The more usual process appeared to be school based, not individual teacher based; that is - after the basic primer scheme had been chosen - it would be colour-coded or numbered throughout the school in some easily understood way for all the children. In two of the schools additional audio-visual library facilities existed to augment this. Reading primers were generally located in each classroom, and children trained to work through them in certain sequences. Augmentation from supplementary readers held in central school resource areas could then take place with the minimum of teacher supervision. At the Infant levels, children normally reported their successes to the teacher who then noted progress on simple check-cards. In the junior departments there was less attention to reading progress and more concern with whether books borrowed (usually for some aspect of research into the integrated theme) were being properly understood.

The teacher's role in terms of diagnostic testing, evaluation and progress recording was regarded as of vital importance by all teachers in their replies to the questionnaire profile. Quite time consuming checks on core curricula were carried out by teachers in School A. (on forms provided by the school). School B. had the most detailed profiles or record systems - but had also worked out an efficient self-checking profile in maths and language studies which considerably lessened the burdens on the teacher. Nevertheless - even in School B. considerable time must have been spent in evaluation and recording and all teachers appeared very concerned about its time consuming nature. Few teachers, however, seemed to think that daily records were necessary, though in School A. these were in effect taking place in reading, writing and number. In no school was any homework commitment expected of the pupils, though in School B. the older children clearly extended their project interests into various forms of voluntary homework preparation and completion. This also appeared to happen a little in Schools C. and D.

What was also most noticeable in all four schools was that, despite many instances of the parallel grouping of children, there was little team teaching or combining of class groups. Insulation of the teacher from his or her colleagues whilst teaching appeared to be the norm, though there was obvious consultation and involvement in staff room meetings,

discussions, etc. However, in all schools, and especially in A. and B., assistants, visiting students and helping parents were considerably in evidence as additional human resources and teacher aids in the classroom.

Observation schedules employed in the four schools suggest that the majority of teacher's classroom time was spent in organising roles of various types, but in all classrooms both teachers and aids were also constantly acting in advisory/consultant roles. This latter was most noticeable in School A., when no class teacher was usually without an assistant and where, in all lessons observed, the class assistant could be seen listening to reading assignments, helping set out apparatus or aiding children in organisation of materials. Several parents were also observed helping with art displays or listening to small groups. It was evident that such tasks were always carried out as a result of the teacher's orders or concomitant upon her overall organisation. Aides did not initiate or instruct at any stage.

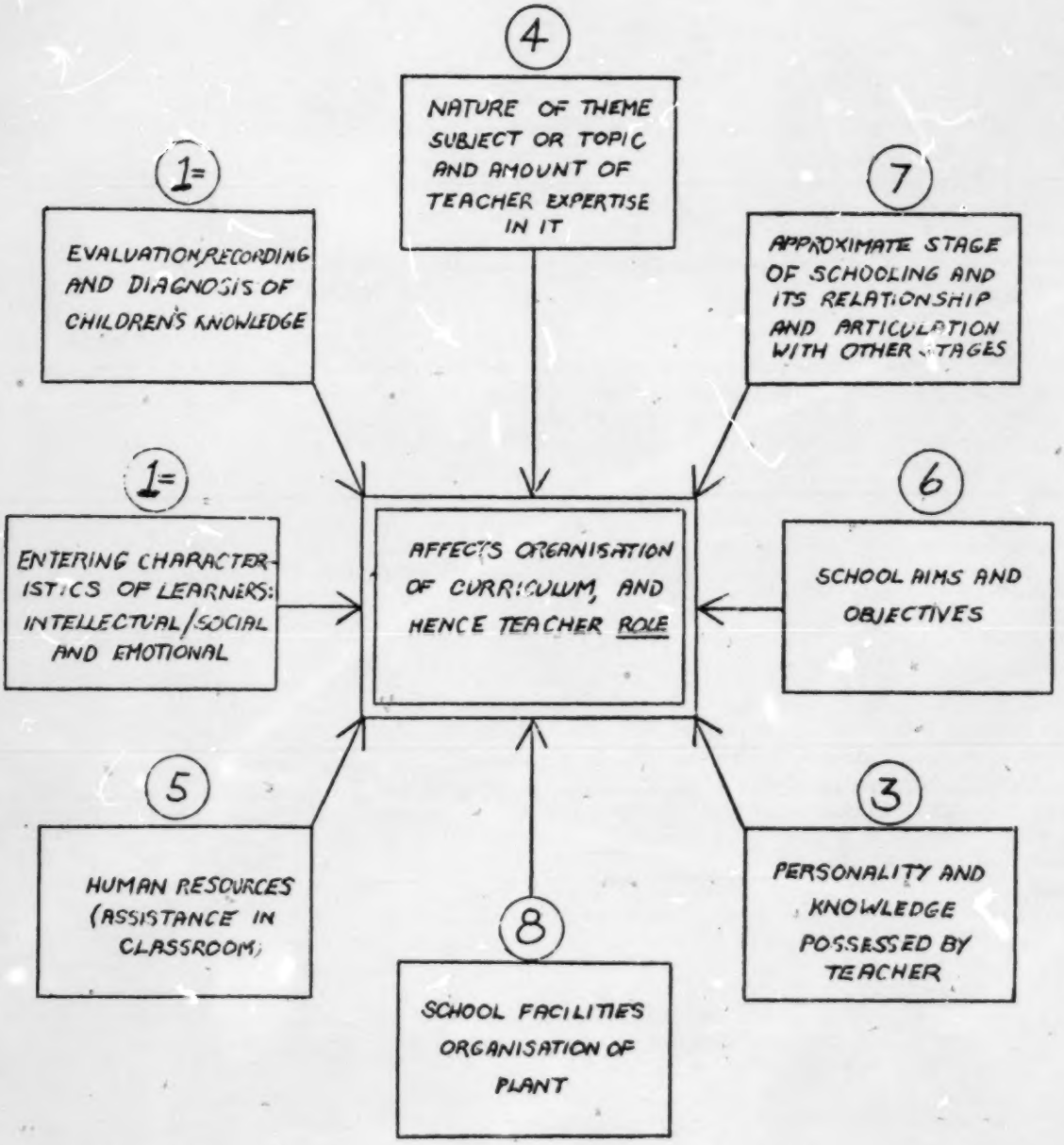
One clearly noticeable feature of all schools (with the exception of School B) was that child movement was much less than one might expect in activities which were conceived of (by the teachers) as predominantly child-centred. In infant departments, after initial deployment of children on tasks, children tended to remain in one assigned place. Teacher movement, too, seemed relatively limited. Teachers were often (particularly in School A) 'wedded' to a central point to which they called children in order to check work. The recording system and the collation of those records may have been a factor in limiting the teachers' movements generally.

Discussion

Several things became immediately clear from our observations of the schools and discussions with teachers concerning their roles: 1)Assistance in the classroom is generally necessary if the teacher is to cope with the wide variety of demands from the children. 2) Material resources have to be abundant - carefully planned and articulated and carefully stored and presented in such a way that children can make use of them with the minimum fuss and disturbance. 3) A self-recording/evaluation system is virtually essential if the teacher is to be free from constant onerous recording. (This is an extremely complex issue, since diagnostic checks are also constantly needed). 4) A good supply (library) of teacher reference material is also essential, since teachers are often 'learning alongside the children' and frequently have to advise in areas of knowledge new to themselves. 5) The integrated curriculum is as successful as is the teacher himself. If he has wide knowledge and enthusiasm it is more likely that the curriculum will be fully integrated. 6) Core curricula do generally appear to have to be separately and carefully catered for; elements of their integration with the theme have to be particularly planned and catered for if those core elements are not to go by default.

Immediate critical constraints bearing upon the role of the teachers may be crudely identified as follows; and diagrammatically expressed they might look like this:- The constraints are numbered (ranked) in the order of importance in which the teachers both said they placed them and appeared to place them. Though the head teacher does not feature in this diagram as a 'prime constraint', one must continually bear in mind that the head teacher guides and 'sets' the dominant curricular approach whether he or she is obtrusive in all this depends upon personality and share in organisation as much as upon stated beliefs.

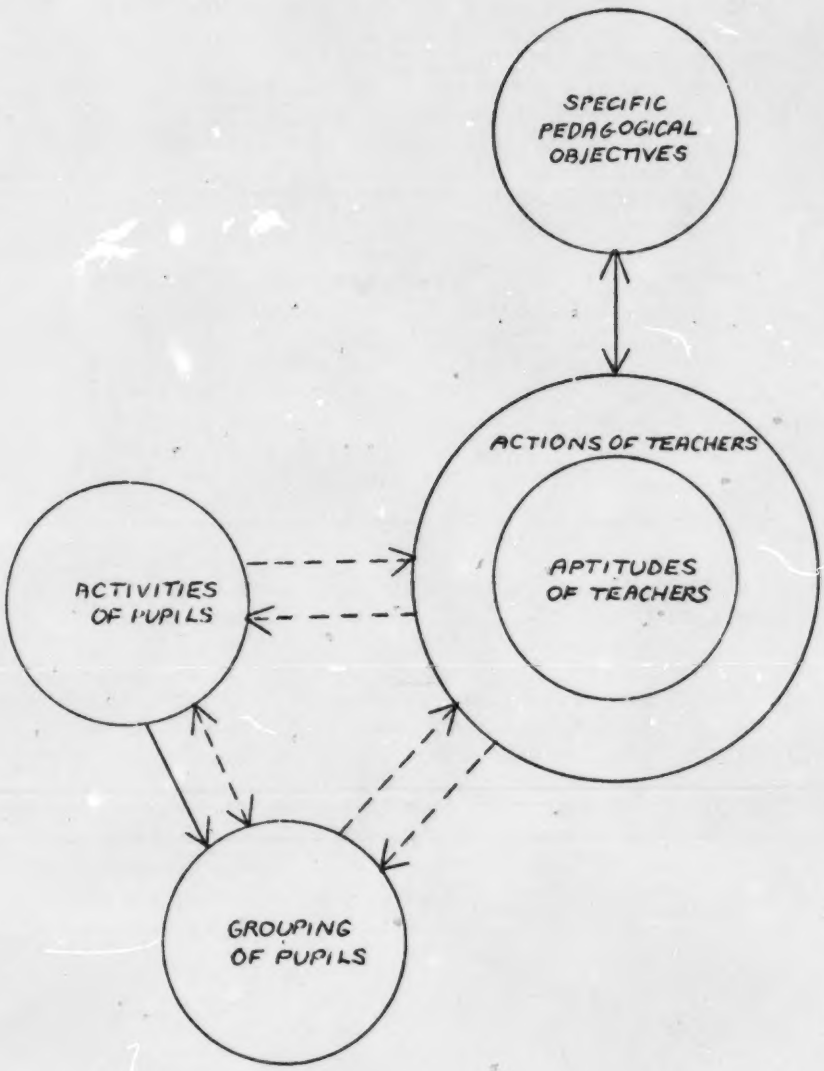
Fig.7.


4
NATURE OF THEME SUBJECT OR TOPIC AND AMOUNT OF TEACHER EXPERTISE IN IT
1=
EVALUATION, RECORDING AND DIAGNOSIS OF CHILDREN'S KNOWLEDGE
7
APPROXIMATE STAGE OF SCHOOLING AND ITS RELATIONSHIP AND ARTICULATION WITH OTHER STAGES
1=
ENTERING CHARACTERISTICS OF LEARNERS: INTELLECTUAL/SOCIAL AND EMOTIONAL
AFFECTS ORGANISATION OF CURRICULUM, AND HENCE TEACHER ROLE
6
SCHOOL AIMS AND OBJECTIVES
5
HUMAN RESOURCES (ASSISTANCE IN CLASSROOM)
3
PERSONALITY AND KNOWLEDGE POSSESSED BY TEACHER
8
SCHOOL FACILITIES ORGANISATION OF PLANT

Those constraints (or characteristics) ranked in the diagram at 1 to 4 were noticeably referred to (in a variety of ways) by the teachers as by far the most significant factors affecting the role of the teacher in the integrated day school. The apparent emphases by the class teacher upon the entering characteristics and cognitive and social levels of the children were usually factors also referred to by the headteacher when discussing the aims and objectives of the school as a whole. Surprisingly, perhaps, especially since two of the schools were not built with anything but traditional classroom practice in mind, almost no teachers considered the facilities and organisation of plant had much bearing upon their work. As stated earlier, this may have been because little team teaching was carried out and because class and group units were on the whole insulated from one another. Yet all schools made considerable use of 'overflow' areas in corridors or stairwells in order to provide additional material resource areas and 'quiet' or individual work spaces. In School A. even part of a cloakroom had been set up as a woodwork and craft area. Children's work in this latter area was usually supervised or assisted by a kindly and knowledgeable school-keeper who took considerable pride in helping the teachers and, in addition to working with children, often helped in the construction of equipment, carrels, or work spaces which the teachers requested.

Quite clearly the prime factors interacting, constraining and affecting the teacher's role were those concerning children (including evaluation) theme or subject and personality of the teacher. There would appear to be a gulf between these and other constraints set out in the diagram. This was to some extent reflected both in conversation with teachers and in our observation schedules of series of different lessons. Preoccupations with lesson content and grouping of children in terms of cognitive development were very much interactionsof those constraints shown in the diagram at 1. and 4. In terms of Annex C. diagram (Guide Lines for Case Studies - O.E.C.D. SME/ET/76.1) and if 'grouping of pupils' could be taken to include diagnosis of their approximate entering characteristics, then the prime interaction is simply thus:-

Fig.8



The term 'specific pedagogical objectives' would, of course, have to be interpreted very widely since, at some points teachers are able to spell these out in terms of the overall theme, or levels of progress or attainment in core curricula, at others the activities have become so diffuse and child-chosen that the objectives can only be specified in very general terms of presumed developmental or social gain.

3. Teachers' other tasks and their relation to components of the teaching/learning process

Experience of the case-study schools, together with personal experience of similar schools in the U.K. over a considerable period of years, leads us to suggest that general aims and objectives are rarely other than stated in the most bland and idealised way. In many schools, too, there are no such general aims explicitly set out and the aims of the schools are implicit in the attitudes and curricula of the headteacher and staff. One headteacher (School C. in the case studies) expressed the general aims and objectives in Brunerian terms, that for her the educational process was seen as the continual broadening and deepening of knowledge in terms of basic and general ideas, that children should be learning not skills, but, in Bruner's words, general ideas "which can then be used as a basis for recognising subsequent problems as special cases of the idea(s) originally mastered." (Bruner, 1960, The Process of Education p. 17). It would be unfair to state that the general aims suggested by the other headteachers were so generalised as to have little meaning, but certainly they were in essence of the laudable (but imprecise) terminology employed in the Plowden Report. Thus, headteachers were concerned about 'fitting children into society so that they become well-balanced individuals' (vide Plowden Report, 1967, para.494), or helping children to 'discover their potential and become purposeful and generous human beings'. In School A., the teachers were offered 23 general principles or rules which the headteacher felt might become the school philosophy and enhance the quality of school life. These are almost guidelines to the style of teaching of which the head approved. As such they bridge the gap between general aims and objectives and specific pedagogical objectives. Again, however, there are problems of interpretation. For such guidelines, though seemingly very specific, (as indeed they actually are at times, offering advice on how to seat children) are nevertheless usually couched in terms which require considerable definition of 'fleshing out' before they can be anything but approximate principles of action (See Appendix C).

As regards specific pedagogical objectives, these were formulated quite clearly, either in writing or verbally, by all four headteachers of the case-study schools. In addition the profile questionnaire gave support and a measure of concurrent validity to their statements. School A. was the most specific here, particularly concerning the organisation of the curriculum. This curriculum is expressly expected to include work in the three R's daily, what are termed 'getting together' periods. These latter are times when the whole class should be called together for a story, singing or general discussion. Guidelines are also given for habit-training and specific objectives stated in terms of evaluation, which must include daily recording in core curricula and 'child-interest' areas. It will, however, be recalled from earlier in this report (p. 14) that in this school, some of the children were very conscious of a feeling of pressure. Indeed, School A. was by far the most specific regarding the essentials of organisation, the aims and objectives of the school, the methods to be employed by teachers, the reasons for pursuing an integrated day, and in its insistence on daily evaluation. Yet School B. offered more completely thought-out modes of evaluation and diagnosis, though offering far fewer guidelines for the teachers.

School D. offered the least in specific pedagogical objectives - though teachers themselves appeared to formulate these quite precisely within their classrooms. In all cases, several prime objectives were pursued. These can be summarised simply as follows:

1. to establish a non-restrictive educational climate, i.e. an education not merely elementary but preparatory and exploratory, which does not see objectives in terms of formal examinations or 'meal-tickets';

2. to integrate and relate knowledge categories as much as possible;

3. to attempt to match task with the learner's levels of ability and instruction;

4. to train children to become active agents in seeking knowledge.

Subsidiary pedagogical objectives then become much more specific and of the 'within-class' or 'within-task' type, i.e. for a five year old to achieve concepts of serialisation and classification by employing games with cotton reels, sets of counters, or putting pairs of classmates' shoes in sequence, etc.

Inevitably, perhaps, the prime pedagogical objectives were not fully realised in the schools observed. It might indeed be doubtful that they ever could be for all pupils all of the time. In particular, the children themselves, possibly because of home experience or because of human need to classify and label, began, as they grew older, to compartmentalise and specialise in their interests. In addition, attempts to match tasks with the learner's levels of ability appeared to be at worst haphazard and at best often intuitive. The presumed levels of ability/need or motivation were what most teachers appeared to work from. In many cases these presumed entering characteristics could be supported by some reasonably objective data - such as that derived from recording systems or simple methods of diagnosis. The most accurate diagnosis (as far as one could tell) apparently occurred in the reading and language areas. This was because teachers appeared to be familiar with standard testing procedure in reading and commonly employed such Reading Attainment tests as the Schonell, the Holborn test, or the Neal Word Analysis test. In all this it was clear that the line between instructing and self-initiation and discovery was often very thin indeed. Active intervention by the teacher was often needed to prevent needless repetition of routine tasks already well mastered. Equally, the success rate in diagnosis of intellectual level, and the matching of appropriate material did seem (especially at Infant level) to depend very much on the deployment of a teaching assistant. Human resources were essential if objectives making sense to the particular child engaged on a particular task were to be constantly monitored and reformulated. Success in coverage of a large class (30+) seemed to be almost as much related to the expertise and skill of the teaching assistant as to that of the teacher. Here, though, the deployment of adequately matched, graded and strategically placed assignments and material resources seemed absolutely essential.

III. Tasks of teachers

One can give only a very approximate estimate of the amount of time spent on the various tasks which go to make up the teachers' routines. Clearly there is a major division of responsibility between the headteacher and the others. In all four case study schools the headteachers were non-teaching appointments, that is they were appointed expressly to carry out a managerial and administrative role. All other teachers were fully occupied as class teachers, though some teachers were employed part-time. In actual fact all four headteachers tried to include some teaching in their own timetables each week, but this was necessarily of a very limited amount. All headteachers were aided by a full-time secretary-cum-general assistant.

In all the schools a certain number of special posts of responsibility which carried greater remuneration were allotted to experienced or appropriately qualified staff. It is difficult to generalise, but, in a school of 8-10 teachers, such posts would amount to about 3 or 4. The most senior of these would be that of the deputy head or first assistant; the person expected to deputise in the headteacher's absence and to carry a certain amount of day-to-day administrative responsibility. Typically, other graded posts were (in the schools studied): responsibilities for mathematics and advice on maths curricula, responsibility for music (common to all four schools), responsibility for games, responsibility for language studies. Such posts were 'scaled', that is ranked in order of priority, the higher ranked scale carrying greater remuneration. But decisions as to their distribution and order of priority were left to the headteacher to make.

Administrative and Managerial tasks

In England the differences between primary and secondary schools are such that divisions of teacher tasks which are clear and appropriate at secondary level are often unclear and inappropriate at the primary level. This is because, as a general rule, no primary school has departments, faculties or non-teaching administrators, counsellors, etc. Consequently, in the four case study schools, a great deal of the administrative and managerial work of the day-to-day variety was necessarily carried out by the classteacher. Much of this is of a minor and clerical nature, such as the checking of attendance registers, dinner money (sometimes carried out by the secretary), the ordering of books for class libraries, arrangement for attendance at eye or dental clinics (in conjunction with medical authorities), the writing of replies to parental queries, etc.

Most teachers appeared to spend not more than 30 to 40 minutes per day engaged upon such activities if one excludes recording and evaluation of pupil progress. However, even this amounts to some 10% of overall school time spent on such matters. The deputy head or first assistant spent considerably more than this in such activities, usually including re-ordering furniture, ordering books for school library, seeking advice on new text books or audiovisual material required. In School C., the deputy head spent up to 40% of his/her week engaged in such activities. It appeared somewhat less (20% - 30%) in the three other case study schools visited.

In all four schools, the relationship between administration and curriculum planning is not easy to define. Whilst, in each school, daily school assemblies of 20 minutes or so were taken on a rotation basis by all teachers and classes and by the headteacher, the organisation of these was usually seen by the teachers as an exercise in curriculum planning, since most assemblies employed ideas and examples of children's work either to further projects or themes, or to suggest new ones. Then, in School A. in particular, assemblies were virtually important catalysts to curricular action and teacher and children saw them as such. They were elaborate, frequently attractive and often incorporating considerable work in drama, aesthetics, or music. Children in all schools appeared to enjoy the daily assemblies and saw them more as their own production than the teacher's. Nevertheless, teachers clearly spent at least 5% of monthly time in planning, organising, and executing these assemblies. Similarly, the annual open day preparations were usually taken as legitimate extensions and display of curricular provision. But these days (or evenings) called for a high level of teacher commitment, difficult to quantify, but in the one month preceding open displays (which in two of the schools were twice yearly) teachers could spend up to 30% of the school day engaged with the children in such routine. Also, much more time was called for after school hours and teachers regularly spent 4 or 5 hours of their own time prior to open day arranging displays.

All teachers were, in the schools studied, expected to supervise the children's play activities. Such supervision can hardly be regarded as administrative, except in a very generalised way. However, on a rota basis, it was usual for two teachers to spend up to 20% of a given day on herding children out into the playground, supervising their activities on apparatus, and keeping a watchful eye on free play, then shepherding the children into school at a given time. 'Break duties' as these are termed, are normally required about one day per week of each member of staff. In two of the schools, the headteachers also took their turn in such routines.

Curricula Planning

In all four schools, and typically in British primary schools, there was little overt outside pressure on the curriculum. The curriculum is expected to be contributory to the development of the 'three R's' and as such there have been recent calls in political and local government circles for more accountability on the part of the primary schools. But, in fact, our observations would lead us to believe that the curriculum, its overall style, organisation and content, is very largely the brainchild of the headteacher. All headteachers interviewed regarded curricular considerations, shape, methodologies and planning to be very much their central concerns.

Almost all class teachers questioned claimed to spend a very great deal or a considerable amount of time in curriculum planning and preparation. Again, it is difficult to separate this category from some of the others, such as 'preparation of pupils' work' and 'use of pedagogical material'. All three are inter-related but clearly a great deal of curricula planning is required of teachers following an integrated curriculum. Some of the

teachers tried to quantify the amount of time spent in such activities when they responded to questions seven and eight of profile questionnaire A. The most common reply was one of 'about four or five hours per week' out of school time, plus the addition of considerably more vacation time on the working out of overall basic themes for the coming term. Thus one can estimate that a half-day per week of the teacher's own time (however distributed) was required for basic curriculum planning and maintenance throughout the year. Many teachers clearly spent much more than this amount of time but were unwilling to quantify it. In three of the schools observed one might very approximately estimate that a small amount of time (upwards of half an hour per week) was spent in planning and discussion of plans with other members of staff, including the head-teacher. In School A., it was probably somewhat in excess of this.

Whilst a good deal of curricula planning was obviously carried out in the vacation prior to the commencement of term-time, there were other features worthy of note. Relatively recently, and apparently at least partly on advice from the Local Education Authority Advisers, each school had started to send some of its teachers to visit other schools to observe curricula and pedagogical methodology (though probably not amounting to more than one day per term). In addition each school set aside one day per year for staff discussion concerning the overall aims and objectives of the school and to discuss any major curriculum changes or innovations. These last 'in-service-in-school' days were generally thought to be very useful by the teachers, helping them to raise major questions or to focus on general curriculum issues rather more than in the short regular staff consultation-type meetings; the latter being usually more concerned with immediate organisational matters of day-to-day system maintenance.

As mentioned previously each school tended to allot graded posts for some type of special responsibility. The most obvious specialist area of the curriculum in the schools observed was that of music. Few of the general subject teachers planned musical appreciation, singing or instrumental playing without consultation with or assistance from the specialist. In some instances (though not all) music lessons were separated from the overall theme and time-tabled as a regular commitment for the children with a separate teacher. This is not to imply that a great deal of time was normally spent planning the music curriculum, but that for certain (specialist) teachers a significant part of their vacation time devoted to curriculum plans would be concerned with music. It does not seem easy to quantify this except to say that in one school the music teacher estimated that a third of overall time devoted to planning was spent on music.

Preparation, use of material and evaluation of pupils' work

Though this category is difficult to separate from other aspects of the tasks, it is quite clear from the schools observed that a considerable amount of time was spent on preparation both by the class teacher and by her aide. In this respect the observation schedules employed were useful in that one was able to note teacher intervention, in the 'content/ grouping' and in the 'assessment' categories that teachers typically

spent a substantial part of the lesson in, say, evaluation, organising and distributing work sheets, familiarising herself with pupil progress, etc. In school A in particular - in two classes observed - almost 50% of the lesson time was spent in various forms of preparation - even with the help of the assistant. When one takes into account that the teachers from this particular institution spent a considerable amount of weekly time (out of school) up to 4/5 hours in general curriculum planning, one realises how demanding the 'integrated curriculum' can become. To some extent all observations showed the similarly large investment in time required for various forms of work preparation. It clearly varied from class to class rarely seeming to amount to less than 25% of a typical session (say 15 minutes in any hour). Teachers varied in the skill with which they deployed resources and in one observed case, where the teacher was particularly inexperienced, almost the whole of a 40 minute lesson period - (ostensibly devoted to historical aspects of the 'theme') was spent in ensuring work sheets were distributed, organising group activities, recording, evaluation and collecting in material. The children appeared to have not more than ten minutes uninterrupted 'peace' in which to immerse themselves in their tasks.

One aspect of preparation which many of the teachers spoke of was that of they themselves ensuring that they had sufficient knowledge of the subject field. This is a particularly serious aspect of preparation where the pupils are in the 9-11 age range, since often a bright child of this age is constantly seeking advice in areas of knowledge not covered by the teacher in his own education and training. Indeed many teachers spoke of the polymathic expertise which was required of them, particularly when dealing with social, environmental and technological aspects of a theme. For example, one group, pursuing an aspect of a transport theme was seeking information on metals employed in a jet engine rotor blade, another child was seeking information on comparative speeds of insects - and, more importantly, how to check the speed.

All headteachers were aware of these demands - but found it difficult to quantify them. The headteacher of school C had begun to build a resource library with a particularly effective speedy cross-reference system, partly in order that teachers and children could develop ideas in a theme almost at will and with as little let or hinderance as possible.

Generally speaking, time spent in preparation of work decreased in its organisational load, but not complexity, as the children grew older. At the ages of 9, 10 and 11 years, most children brought up in an integrated curriculum were used to selecting, organising, and to some extent evaluating, their own materials for learning. Teachers of this age range were much more likely to be employed learning alongside the child than at the infant level, where a great deal of constant effort was required in the preparation and monitoring of work.

As stated earlier, key pressure seemed to be in the field of evaluation. Here there was a wide range of viewpoints expressed by teachers and an equally wide range in time spent in evaluation. Some (few) teachers thought that recording and evaluation were rather pointless, pointing out that 'weighing a pig did not necessarily help to fatten it'. But most

teachers were acutely worried about evaluation; some almost permanently uneasy about it, feeling that it was almost impossible, given the nature of the integrated curriculum to employ suitable or frequent comparative checks. Some felt that even diagnostic evaluation was made more difficult by the integrated day approach. Evaluation as a whole clearly includes social and emotional evaluation; and here one thing did stand out. Almost all teachers really did appear to know their children and to be concerned about their social and emotional welfare. Certainly, in all schools it was a frequent topic when one talked of evaluation with the teachers. This may be partly due to the continued contact which takes place over the whole school year, day in and day out. It may be partly due to the traditional emphasis placed by primary educationists on concern for the 'whole child'. For the most part, experience of the four case study schools would suggest that a teacher was more likely to omit or miss some important diagnostic aspect or stage of evaluation in a cognitive area than to be unaware of any emotional concomitant. Such an impression is, however, merely a subjective one obtained from four schools. It cannot be quantified. Furthermore, all social and emotional evaluation was subjective; very little 'hard' or objective data being available unless the child had been sufficiently disturbed or unusual to merit referral to the local Child Guidance Clinic for psychological testing and assessment.

A good deal of general evaluation took place, especially in the junior schools, via what one might term discussion and incidental conversation. This quite naturally varied in respect of teacher skill and child age, but an impressive example was noted in school B. with one teacher of a ten year old age group. Groups of children were drawn together for discussion of their combined contributions to the theme and a great deal of listening, correction, the input of fresh ideas and (later) some recording by the teacher took place. It was all done so skilfully that the children were hardly aware of the way in which the teacher developed their ideas and diagnosed problems.

Maintenance of pedagogical material was one of the main occupations carried out by teachers' assistants, though in several cases the construction of new material, visual-aids, work cards, was observed. Many teachers devoted substantial time both in and out of class to the development of new material, either as 'catalyst' to a main idea in the theme or as separate resources for groups or individuals. Certainly, despite good material resources, library and audio-visual facilities, all teachers expected to make work cards, charts, illustrations and, in some cases, simple apparatus. In school C. the headmistress had designed and constructed visual-aid units for selection of material in the central resource bank.

Personal contacts and peripheral role demands

Whether the four case study schools chosen were entirely representative of English primary education one is not able to say. But extension of contact with the pupils for other than immediate transmission of knowledge could be commonly observed all the time. It is not easy to ascertain if

this change in contact, this more continued involvement with pupils and less social distance between pupils and teachers are concomitants of social change generally, or if they are simply products of a particular style of English primary education. Of necessity a great deal of tutoring and small group work is entailed in the integrated curriculum. This frequently involves teacher and pupil in one-to-one contact. Also, particularly within the older age ranges, children were taken out of school a great deal and a lot of the thematic material involved historical tours, field trips, visits to factories or was itself regarded as the focal point of school camp or 'journey' expeditions. Thus the teacher, besides being constantly required both to tutor and to learn alongside the child, has clearly changed from a position of 'fountain-head' to a more fluid and dynamic position involving opinion-leading, advising, facilitating, assisting and providing. But, in addition to all this facilitation of the transmission of knowledge, children and teachers did exhibit warmth of relationships and concern to develop hobbies and 'extra-curricular' events with one another, particularly in the junior age-range departments.

Contacts with other teachers were frequent and informal, though little systematic team-teaching was involved in any of the schools. What was clearly apparent was the degree of involvement in planning and general concern shown by the heads. All headteachers appeared to spend break-times in the teachers' staff room and both groups seemed to welcome the opportunity for informal interchange of ideas. Each of the four schools had formal and informal links with parents and all teachers were used to and expected parents to be able to visit them in their classrooms. Accessibility, though clearly institutionalised is, of course, related to the personalities of the adults concerned. No quantification of the amount of contact is possible, but in schools A. and B. it was noticeably frequent.

All four case study schools reflected a growing concern with 'accountability' and were anxious that, whilst parents and lay managers should not be given too much responsibility in terms of curriculum choice. method, or selection of staff, all parents and adults connected with the schools should be fully informed on what the general philosophy and methodology was. It would seem that this is merely an illustration of the larger on-going debate nationally concerning the responsibility which schools should show to the community at large and of their duties of liaison and interpretation. Certainly headteachers and teachers were anxious that parents should not misinterpret their actions and all were at pains to welcome parents into the school.

Personal and Professional Development.

In three of the four schools there was almost complete concensus that teachers viewed further professional in-service training and knowledge of current research as essential to their professional and personal growth. In one school there was less obvious enthusiasm for personal re-training, though still a slight majority in favour of it. In general, then, almost all teachers took their own continuing education very seriously.

In addition many added that they felt courses and experiences not directly connected with the profession were particularly important for teachers in that such wider interests kept them from becoming 'stale'. Many of the teachers have attended or expected to attend short courses of professional studies (some of them at the local teachers' centre; others provided by the University's Further Professional Studies Division). Three teachers had recently been involved in local research groups meeting out of school hours at the University School of Education. A large proportion of teachers in Schools A, B and C had been given the opportunity to visit other schools to observe and discuss methodology. This latter, though at the discretion of the headteacher, is actually encouraged by the Local Education Authority. As stated previously, the practice of devoting one (and sometimes two) days per year to in-school discussion was also becoming current.

IV. Looking ahead: problems and challenges in the changing role

Certain general questions emerge from this study of the integrated curriculum in primary schools. These are concerned with the competencies required of teachers, whether the teachers are at present adequately trained for such competencies and whether the teachers are able and willing to meet the challenges of new methods.

Clearly, the schools were fully aware that curricular innovation is most effectively implemented A) when the community is able to understand and support that change, B) where the teachers actively understand and support it and C) when adequate human and material resources exist to back up that innovation. Equally clearly, the aptitudes required of teachers, particularly probationary teachers or those inexperienced in the methodology employed, are particularly centred upon organisation and evaluation.

It would appear from talking to the teachers of the four schools that almost all were convinced that, at the primary level, integration was more important than differentiation. They did, however, for the most part concede that mathematics and the physical sciences were rather more distinct forms of knowledge that required separation. Equally, they were concerned with questions of the utility/validity of the core curricula (very loosely, the 'three R's') and thus tended to see these as needing systematic and logically interrelated development at the same time as thematic work in the expressive arts and the broader fields of humanities progressed in an integrated form. It would seem likely that teachers would benefit from wider experience of the methods employed by other teachers. The practice of allowing teachers to observe others, to see different exemplars of organisation and evaluation was deemed highly desirable by all teachers. Most teachers interviewed thought that there were not enough opportunities of the sort. About half the teachers questioned as to whether their training had helped them prepare for a role in the 'integrated day' replied that it had not. (Here, however, the wide disparity in age of teachers must be borne in mind; clearly many of the older teachers could not have expected to be trained in such methods.) It is perhaps also significant that the particularly harmonious

and well organised school in the case study sample was administered by a head who had been a specialist secondary teacher in the past. A substantive minority of the teachers interviewed expressed views concerning traditional modes of teacher education (especially the pursuing of a specialist subject at college) as 'unsuited'to the integrated day. They suggested that there should be major changes in teacher education so that - at primary levels - inter-disciplinary studies took the place of main subjects. They saw classroom organisation and resource development and maintenance as inadequately dealt with in colleges and in courses of further professional training. Surprisingly, perhaps, few teachers thought team-teaching particularly advantageous. This may have been due to the nature of our sample for investigation. After all, none of the schools had been built with team teaching in mind and no building lent itself 'naturally' to such a mode of organisation. But team-teaching was not rated as being necessarily part of an integrated approach. Logically, especially at late primary and middle-school levels, it would seem to be an obvious outcome of adopting any integrated curriculum or inter-disciplinary approach. Integration of the curriculum, therefore, did not at the lower age levels imply integration of the teaching staff. What it did imply, of course, was the classroom being organised into a variety of learning centres, with the potential number of learning centres being as varied as the number of children on roll.

Conclusions

A great deal of the success of an integrated approach to the curriculum depends upon the effective diagnosis, understanding and appreciation of the entering characteristics of the learner. Whilst thematic work was typically, or at least more often, planned in outline during vacations and away from the children, its success depended upon 'goodness of fit' to the individual differences of each child. Though teachers appeared fairly well aware of this factor, there were serious problems in catering for it. At the lower age levels, where only the rudiments of literacy existed, so much of the matching of material to individual children's needs depended upon the class teacher having time to talk with the child. Size of class, as well as the occasional limitations in the imagination and sensitivity of the teacher, often precluded really individualised approaches.

Success in the integrated curriculum also depended very much on the children being early trained in independence so that they could seek much of their own material. This independence training varied according to the skill of the teacher in educating and training the children in this mode, but it also varied in respect of the child's background, his value-systems and personality. As a very broad generalisation, it would appear that schools in predominantly working-class areas had to spend more time in training the children to initiate, select and organise their own activities. Much of the child's initial term of entry (at age five years) into state schooling is devoted to this aspect. At the older age levels, a good deal of delegation of responsibility to pupils was observed, particularly in respect of the older girls in the primary school. But even here, possibly because of organisational complexity, the children's work was not always evaluated swiftly enough and feedback of

information depended upon the individual energy of the teacher as well as upon successful organisation of and deployment of adequate material resources in some easily accessible and logically regulated form.

At many times during the school day teachers seemed to have to rely on subjective and semi-intuitive diagnoses of the entering characteristics of their learners. Clearly, simple but efficient modes of diagnosis and evaluation are vital to success in the integrated curriculum. There is evidence that the teachers have insufficient knowledge, time and assistance in this area.

Thus one might conclude that at all age levels of primary education the teachers need to be trained and retrained more effectively in:-

1) diagnosis of individual differences; this entails the knowledge and experience of different methods of record keeping in order to monitor and advise in pupil progress;

2) organisation and utilisation of resource banks within the classroom and school (simplicity would seem to be the keynote here);

3) efficient deployment of teaching assistant(s) and other ancillary helpers.

Furthermore, it would seem from our investigations that teachers require:-

4) more experience of different combinations of team and co-operative approaches in order to deal with any specialist skills scarce in primary schools (notably mathematics and music);

5) frequent opportunity to observe good practice elsewhere;

6) more time to consult and discuss with colleagues those elements of practice which cause difficulty or problems.

Any weaknesses inherent in the integrated day are those inherent in primary teaching generally, but with some exacerbation caused by the particularly polymathic demands upon teachers and upon their powers of analysis of appropriate approaches and sequences in material. Precisely because the integrated curriculum has a potentially unlimited series of avenues to knowledge, the teachers are often thrown into positions whereby they have to design curricula or sections of the curriculum. The analyses which preceded the articulation of particular sequences within the subject area concerned demand sufficient content knowledge for the teacher to be able to plan different points of entry and development for each child. After initial design and matching of material the teacher is again called upon to bring his knowledge of the child and of that child's idiosyncratic progress together in such a way as to continue assisting that child's learning.

These are difficult and complex skills to demand of any teacher and they require a flexibility of approach coupled with a keen desire to go on learning which would tax all but the most dedicated and experienced.

In most cases the headteachers were well aware how demanding the teachers' tasks were; and they were anxious to support their staffs, to provide both reasons for and examples of modes of operation within the integrated day. Even so the teachers needed (and sought) the advice of their more experienced colleagues continually and informal staff-room discussions often focussed upon questions of organisation and on successful 'themes' utilised in the past.

If the case study schools are typical of integrated day approaches throughout the country, then there would appear to have been a shift of emphasis in approach from that of the pioneers in Leicester and Oxfordshire of the early 1960s. Though classroom practice was still organised around learning centres in the schools we observed, it was now apparent that specific time allotments were deemed necessary for dealing with much of the core curricula. But in all schools one thing was very clear. Freedom to experiment, to alter and change approach was still very much in the hands of the individual teacher, passing not infrequently, almost by osmosis, into the attitudes of the child. Child productivity and teacher skill in organisation were still obviously directly related and the enthusiasm and enjoyment of the children very definitely a powerful force for motivation in all four schools.

Appendix A

SCHOOL C - RESOURCE UNIT

"The unit aims to provide a bank of flexible, non-book resources in the affective areas of the curriculum. The resource unit is intended for use by teachers in preparation of thematic work and by children working on language-based activities.

Although consisting mainly of prose passages, poetry and pictures at present, the collection of materials will eventually include slides, tapes, posters, booklets, work cards, samples of children's work and 3-D objects. These resource materials are intended to complement and to be used alongside reference books, books of fiction and other classroom resources.

An important aspect of building a unit of this kind is the need for careful selection (and rejection) of materials. Each item has been selected for its "quality" (a value-loaded idea) and aims to evoke some genuine feeling in the user.

The idea of "connexions", of one idea leading perhaps unexpectedly to another, is basic to the thinking behind the resource unit. Each item is therefore multi-categorised and has several different potential uses.

The resource unit is emphatically not a kit and its excitement lies in the way in which materials, well-selected and imaginatively categorised, can generate new ideas and develop a theme along unexpected lines.

From the resource unit the teacher has the task of actively producing his own "kit" through the all-important selection and rejection of materials. Children too can select materials to extend their own ideas and add an affective dimension to the information provided in reference books.

The resource unit is not expected to be complete in itself. Teachers will always look for the extra item, their own unique contribution. This leads to feedback of new material into the system so that the unit itself becomes a dynamic resource.

Retrieval

(1) Every item is number-indexed and is stored numerically within its own media band.

(2) Every item has a blue card offering detailed information:-

<table>
<tr><td colspan="3">SCHOOL C</td></tr>
<tr><td colspan="2">ACCESSION NUMBER</td><td>TITLE</td></tr>
<tr><td>AUTHOR/
SOURCE</td><td>MEDIUM</td><td>LOCATION</td></tr>
<tr><td colspan="3">FURTHER DETAILS</td></tr>
<tr><td colspan="3">FEATURES:</td></tr>
</table>

These cards are stored in numerical order in a card index box.

(3) Each feature (or category) is detailed in the feature list and each has its own Anson retrieval card (the large numbered sheets); these are stored in the Anson visi-post unit. Where an item is categorised under a feature heading a hole is punched on the feature card at the appropriate number. (Each square represents one hundred numbers and the large red figures designate the hundreds).

(4) All the items are stored by medium, i.e. all pictures in the map cupboard, all poetry in the lateral filing unit.

(5) To retrieve an item on, for example, harvesting, take out the feature cards for Farms, Autumn and Machines. Lay these on the lighting unit. Where a hole has been punched at the same place in all three cards there may be an item on harvesting. Take the number and check its blue card in the card index box. This will give extra information. Then look up the items and select those appropriate to the theme.

Above all, it is important to use the feature list fully. If a feature is not listed look for related headings. In this way the basic idea of connexions can be exploited.

(6) Many categories in the feature list are contrasts, e.g. Birth/Death; Movement/Stillness; Change/Continuity. This often reveals unexpected connexions and may lead to new ideas.

(7) Always return feature cards, index cards and finally return items to the correct place in the resource unit.

(8) Having made a careful selection of material please see that it is booked out on the booking sheet so that forgotten items can be traced."

(verbatim; the headmistress, School C)

Appendix B

OBSERVATION SUMMARY

Name of School .....

	ART/CRAFT DISPLAY T. TP P	APPARENT CONCERN WITH EMOTIONS, ETC. + O -	TEACHER INTERVENTION + O -	CHILD MOVEMENT + O -	TEACHER MOVEMENT + O -	LESSON CONTENT AND SIZE OF GROUPING G g I	ADHERENCE TO CORE CURRICULUM = O -	ASSESSMENT BY TEACHER AND BY PUPIL	NUMBERS AND SYMBOLS (D) 1 - 5 and R & C

Notes

This schedule was used merely as a basis for written notes. The symbolic notation is used as an agreed code (between the two observers) for recognisable gradations of teacher-centred or child-centred organisation. In addition a three-point weighting scale (+ to - symbols) is employed and numbers 1 to 5 refer to question 11 of Profile A, being used to establish some degree of concurrent validity to that response.

Appendix C

School A

"What is it that makes for good education?

To answer this - please consider carefully the following general principles or rules of conduct which, if implemented could affect the quality of life in your classroom.
These 23 indicators of school quality could become your philosophy - guide lines by which you could live and work with children.

1. Knowledge of Pupil - the teacher knows each pupil. This concept is broader than merely knowing an I.Q. or a reading score. It includes knowing the habits, interests, hobbies, family relationships and other aspects of the child's life outside the classroom.

2. Physical Facilities. A variety of resources is available and in use. This covers every type for in class and out of class use - including audio visual aids, books, specimen objects etc.

3. Different Tasks. Children work at different tasks. Teachers make a variety of assignments designed to individual requirements.

4. Participation. Learning situations are sufficiently varied that all children are seen participating in some learning activity.

5. Communication. Teachers communicate individually as may be needed with pupils singly or in small groups.

6. Questioning. Teachers questions vary in type and difficulty for different pupils and in order to make sure each child understands.

7. Teacher/Child Roles. Teacher adopts the role of a resource person and helper, the children contribute to the direction or content of the lesson and have the opportunity to lead and initiate change.

8. Time for Growth. The time that children require to complete a given task or master a given concept or skill must, because of individual differences vary greatly. The teacher therefore provides for both extra help and enrichment through good planning.

9. Individual Evaluation. Instead of a fixed standard that all are expected to attain or fall by the wayside, evaluation is judged as change or improvement in individual rates of growth and development.

10. Teacher is relaxed, good natured, cheerful, courteous, and if using humour always inoffensive, rather than shouting, frowning, glaring, insulting or sarcastic. (What if children should reflect a similar front.) Teacher meets children on their level - not withdrawn, aloof or superior. (See 22)

11. Patience. Both teacher and children take time to listen to and accept one another rather than press, hurry, interrupt or give rigidly directive orders.

12. Physical Movement is permissive, free, instead of submissive and dominated by teacher.

13. Respect. There is mutually shared respect among teachers and children as evidenced by commending, accepting, helping rather than rejecting or ignoring.

14. Child Involvement. Children are eager, prompt, willing, show initiative or make voluntary contributions, instead of being apathetic, reluctant or slow to respond.

15. Child Problems. Personal problems or handicaps are accepted with consideration, understanding and sympathy, rather than with ridicule or embarrassment.

16. Atmosphere of Agreement. Children and teacher respect each others opinions and come to agreement without conflict or hostility - both openly and naturally accept errors of each other rather than trying to cover up, losing face or showing guilt.

17. Encouragement - positive, encouraging and supportive criticism which children accept, is used, rather than disapproval, admonishment, blame or shame which children ignore or reject.

18. Materials. Children have the stimulation of materials and other resources in great variety and richness.

19. Time for Thinking - time is allowed to think and discover, play with ideas, manipulate objects, experiment without pressure to get the answer, and get it right. A variety of skills used in creative thinking is practised: inquiring, searching, manipulating, questioning, abstracting, analysing, summarising, outlining, generalising, and evaluating. Unusual ideas are entertained without anxiety or tension and unusual questions are considered with respect. Teacher uses open ended questions - children test and challenge, rather than attempt to always give the wanted correct answer.

20. Intercommunication - there is child/child communication, and children are free to seek assistance among their group mates.

21. Class Arrangement. Seating facilitates interaction as in face to face rather than audience situations.

22. Teacher (see 10) the objectives and purposes of the teacher are to cultivate and facilitate social skills, co-operation, idea exchange and shared problem solving, rather than require children to work in isolation.

23. Self Initiated Activity - children take responsibility for self initiated learning, extend the limits of the topic, and the teacher encourages and credits child efforts to go beyond the lesson plan, assignment or question.

24. Motivation. Originality is rewarded with recognition, children's ideas are treated as having value, praise rewards effort. There is much opportunity for guessing, supposing, hypothesizing, forecasting results without the fear of wrong answers."

(verbatim; the headmistress, School A)

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